INDEX

Complete index for *AIME Transactions*, 1968, vol. 241. Months refer to issues of *TRANSACTIONS OF SME*, issued quarterly.

A

Abnormal Behavior of Some Ore Constituents and Their Effect on Blast Furnace Operation, The Mar 1

Administration:
- coal resources, Rocky Mountain, potential utilization ..... Jun 186
- hydrogenated coal bitumen, use as road binder ..... Jun 217
- method for making structural materials from problem flyashes . Dec 404
- mining productivity, econometric approach to ..... Sep 298
- model study, slope modification, at Kimbley pit ..... Dec 525
- optimum production planning ..... Mar 22
- slope angle research at Kimbley Pit ..... Dec 513
- sulfur production from petroleum gases and liquids ..... Sep 314

Adsorption of Calcium, Magnesium, and Sodium Ion by Quartz .... Sep 334

Adsorption of Long-Chained Amines on Quartz, The — Technical Note ..... Dec 418

Agar, G.E.: *Grindability Measurements and the Determination of Energy-Size Parameters* ... Dec 384

Agar, Gordon E., and Hopstock, David M.: *The Effect of Cations on the Amine Flotation of Quartz* ..... Dec 466

Agarwal, R.K.: *Photoelastic Analysis of a Composite Model* .... Dec 495

Agglomeration, see also Beneficiation, Pyrometallurgy

Agglomeration:
- abnormal behavior of iron ore constituents, effect on blast furnace operation ..... Mar 1
- iron ore, by the R-N process ..... Mar 71
- iron ore pellets, compression testing of ..... Dec 475
- iron ore pellets, strength of, effect of ultrafine-particle concentration ..... Dec 533
- moisture control in pelletizing and sintering ..... Mar 27

Allen, J.D.: *Flowsheet Changes for Decreased Moisture of Concord Mine Coal* ..... Mar 109

Allenius, Hans, and Hukki, R.T.: *A Quantitative Investigation of the Closed Grinding Circuit*... Dec 482

Aluminum Off-Highway Truck Bodies for the Mining Industry Mar 77

Application of Extreme Value Statistics to Test Data ..... Sep 372

Application of Rippers in Mining ... Jun 170

Application of Size Distribution Equations to Multi-Event Comminution Processes, The ..... Sep 343

Austin, L.G., and Klimpel, R.R.: *Statistics of Random Fracture* Jun 219
Discussion ..... Dec 409

Automatic Control of Moisture in Pelletizing and Sintering Processes by Means of Systems Based on the Measurement of Electrical Resistance Mar 27

Automation, see also Administration, Beneficiation, Computers, Exploration, Instrumentation, Mining Methods, Plant Design

Automation:
- coal quality control with Cendrex x-ray ash meter ..... Jun 174
- moisture control in pelletizing and sintering ..... Mar 27

B

Balberyszski, Theodore, Cooke, Strathmore R.B., and Dorenfeld, Adrian C.: *Flotation of Artificial Sulfide Minerals* ..... Dec 458

Basin and Range Province, Arizona, geology of ..... Sep 276

Batch Grinding Kinetics ..... Sep 359

Behavior of Mesabi Iron and Silicate Minerals in 20-Kilogauss Magnetic Fields, The ..... Jun 194

Beneficiation, see also Agglomeration, Comminution, Computers, Concentration, Flotation, Grinding, Hydrometallurgy, Instrumentation, Pyrometallurgy.

Beneficiation:
- adsorption of calcium, magnesium and sodium ion by quartz ..... Sep 334
- adsorption of long-chained amines on quartz ..... Dec 418
- artificial acmite formation during silica extraction from taconite Jun 192
- batch grinding kinetics, solution of integro-differential equation .. Sep 359
- batch grinding, size reduction-time relationships of ..... Dec 449
- beryl flotation with hydrofluoric and oleic acid, infrared study of ..... Mar 80
- bin feeders, design criteria for .... Dec 389
- bituminous coal refuse, flotation recovery of pyrite from ..... Dec 377
- charge density of mineral grains, measurement of ..... Dec 445
- closed-circuit grinding, quantitative investigation of effect of classification sharpness on... Dec 482
- comminution of quartz, influence of the environment on ..... Dec 412
- comminution processes, application of size distribution equations to ..... Sep 343
- copper-nickel ore, Duluth Gabbro .. Dec 421
- cyanide depression of pyrite, mechanisms involved in ..... Dec 437
- dixanthogen adsorption on pyrite, mechanism of ..... Dec 431
- flotation and adsorption at different interfaces, relationship between ..... Mar 105
  Discussion ..... Sep 341
- flotation characteristics of pyrolusite ..... Dec 453
- flotation conditions, incipient, hydrocarbon chain length effect ..... Mar 102
- flotation of artificial sulfide minerals ..... Dec 458
- flotation of fluorite, influence of ionic point imperfections ..... Sep 328
- flotation of quartz, amine, effect of cations on ..... Dec 466
- flotation systems, nonmetallic influence of sodium silicate in.. Sep 319
- grindability measurements to determine energy-size parameters .. Dec 384
- heavy liquid recovery systems .... Mar 15
- hydrothermal process for oxidized nickel ores ..... Sep 261
- iron ore pellet strength, effect of ultrafine-particle concentration on ..... Dec 533
- iron ore pellets, compression testing of ..... Dec 475
- liquid-liquid extraction of ultrafine particles ..... Dec 549
- manganese, continuous-weighing laboratory cell for electrowinning ..... Sep 308
- multiple correlation analysis of complex metallurgical systems Jun 227
- of low-grade gypsum by electronic color sorting ..... Sep 331
- pelletizing and sintering, automatic moisture control in ..... Mar 27
- preconcentration, oxidized taconite and semitaconite .... Jun 194
- quartz, electrostatic separation of, effect of temperature ..... Sep 367
- quartz flotation, role of optical isomerism ..... Jun 225
- random fracture, statistics of ..... Jun 219
  Discussion ..... Dec 409
- reduction, abnormal behavior of iron ore constituents during .. Mar 1
- reduction and magnetic separation of manganiferous iron ores by the R-N process ..... Mar 71
- reduction roasting of manganiferous iron ores ..... Jun 204
- segregation, refractory copper ores Jun 157
  Correction ..... Dec 436
- soluble salt flotation, relation of surface charge to KCl-NaCl separations ..... Mar 64
- soluble salt flotation, role of surface charge ..... Mar 56
- sphalerite and pyrite depression with copper and sulfhydryl flotation collectors ..... Mar 34
- sulfidization of hematite for flotation recovery ..... Mar 129
- sulfur recovery from petroleum gases and liquids ..... Sep 314
- xanthate flotation of pyrite, role of dixanthogen ..... Jun 148

Beneficiation of Low-Grade Gypsum by Electronic Color Sorting — Technical Note ..... Sep 331

beryl, flotation with hydrofluoric and oleic acid ..... Mar 80

bitumen, hydrogenated, for road binder ..... Jun 217

Blake, Wilson: *Finite Element Model Study of Slope Modification at the Kimbley Pit* ..... Dec 525

Bleifuss, R.L., and Tufford, G.L.: *The System Fe-Mn-SiO_2-O_2 and its Application to the Beneficiation of Manganiferous Iron Ores by Reduction Roasting* ..... Jun 204

Bond, Fred C.: Discussion of *A Comparison of Data from Bond Type Simulated Closed-Circuit and Batch Type Grindability Tests* by R.W. Smith and K.H. Lee ..... Mar 99

Boswell, E.H., and Cushing, E.M.: *Water Resources of the Mississippi Embayment East of the Mississippi River* ..... Jun 137

Bullock, H. Leslie: *Quartz — Gangue or Mineral: The Effect of Temperature on Its Electrostatic Separation* ..... Sep 367

Bureau Contribution to Slope Angle

Research at the Kimbley Pit, Ely, Nevada ..... Dec 513

C

Cahn, David S., and Karpinski, John M.: *Compression Testing of Green and Dry Iron Ore Pellets* ..... Dec 475
Cahn, David S., and Stone, Rodney L.: *Ultrafine-Particle Concentration and the Strength of Unfired Iron Ore Pellets* ..... Dec 533
calcite, anionic flotation of ..... Sep 364
Cameron, Francis: *What Is A "Have Not" Nation?* ..... Sep 291
Carlson, W.J. Jr., and Iwasaki, I.: *A Continuous-Weighing Laboratory Cell for Electrowinning Manganese* ..... Sep 308
Carroll, P.J., and Colijn, H.: *Design Criteria for Bin Feeders* ..... Dec 389
cement industry, bin dischargers ... Mar 82
Chatwin, Terrence D. and Wadsworth, Milton E.: *High-Temperature Thin-Film Sulfidization of Hematite for Recovery by Flotation* ..... Mar 129
Chute, A.E.: *Sulfur From Petroleum Gases and Liquids* ..... Sep 314
Clark, S.W., and Cooke, S.R.B.: *Adsorption of Calcium, Magnesium, and Sodium Ion by Quartz* ..... Sep 334
Coal:
bitumen, hydrogenated, for highway construction ..... Jun 217
bituminous, flotation recovery of pyrite from ..... Dec 377
drying, flowsheet for ..... Mar 109
mining, hydraulic stowing techniques in ..... Dec 502
pillar design ..... Jun 182
pillar strength, influence of interfacial coefficient of friction .. Sep 323
quality control of ..... Jun 174
resources, Rocky Mountain ..... Jun 186
Coal Preparation, see also Beneficiation
Coal Preparation:
ash content measurement ..... Jun 174
moisture reduction flowsheet ..... Mar 109
Cockrell, C.F., Leonard, J.W., and Shafer, H.E. Jr.: *A New and Low Cost Method for Making Structural Materials from Problem Flyashes* ..... Dec 404
Colijn, H., and Carroll, P.J.: *Design Criteria for Bin Feeders* ..... Dec 389
Comminution, See also Beneficiation, Grinding.
Comminution:
batch grinding kinetics, solution of integro-differential equation Sep 359
batch grinding, size reduction-time relationships of ..... Dec 449
Bond and batch grindabilities, comparison of ..... Mar 91
Discussion ..... Mar 99
closed-circuit grinding, quantitative investigation of effect of classification sharpness on .. Dec 482
energy-size parameters determined through langbeinite grindability measurements ..... Dec 384
quartz, influence of the environment on ..... Dec 412
random fracture, statistics of ..... Jun 219
Discussion ..... Dec 409
size distribution equations applied to multi-event processes ..... Sep 343
zero order production of fine sizes in, implications in simulation . Dec 538
Comparison of Data from Bond Type Simulated Closed-Circuit and Batch Type Grindability Tests, Tests, A ..... Mar 91
Discussion ..... Mar 99
Compression Testing of Green and Dry Iron Ore Pellets ..... Dec 475
Computers, see also Administration, Instrumentation.
Computers:
complex model simulation, multiple correlation analysis ..... Jun 226
digital, use in finite element model of slope modification ..... Dec 525
for production planning ..... Mar 22
Concentration, includes Gravity, Heavy Media, Magnetic and Electrostatic Separation; see also Beneficiation, Flotation.
Concentration:
charge density of mineral grains, measurement of ..... Dec 445
electronic color sorting ..... Sep 331
electrostatic separation of quartz, effect of temperature ..... Sep 367
heavy liquid recovery systems .... Mar 15
manganiferous iron ore, reduction and magnetic separation by the R-N process ..... Mar 71
separation, high-tensity magnetic, for preconcentration of semitaconites ..... Jun 194
sulfidization of base-metal oxides and subsequent flotation ..... Dec 458
Continuous-Weighing Laboratory Cell for Electrowinning Manganese, A—Technical Note ..... Sep 308
Cooke, S.R.B., and Clark, S.W.: *Adsorption of Calcium, Magnesium, and Sodium Ion by Quartz* ..... Sep 334
Cooke, Strathmore R.B., Balberyszski, Theodore, and Dorenfeld, Adrian C.: *Flotation of Artificial Sulfide Minerals* .... Dec 458
Copper:
Duluth Gabbro, copper-nickel bearing, studies of ..... Dec 421
flotation collectors ..... Mar 34
production and consumption ..... Sep 291
segregation of ..... Jun 157
Correction ..... Dec 436
Costs, see also Economics
Costs:
coal mining, reduced by hydraulic stowing ..... Dec 502
iron mining, econometric approach to productivity measurement .. Sep 298
Cox, Robert M. Jr., and Deering, Phillip E.: *Theory of Similitude as a First Approximation in the Design of Coal Pillars* . Jun 182
Cushing, E.M., and Boswell, E.H.: *Water Resources of the Mississippi Embayment East of the Mississippi River* ..... Jun 137

D

Dahl, H. Douglas, and Pariseau, William G.: *Mine Subsidence and Model Analysis* ..... Dec 488
Deering, Phillip E., and Cox, Robert M. Jr.: *Theory of Similitude as a First Approximation in the Design of Coal Pillars* ..... Jun 182
Depression of Sphalerite and Pyrite by Basic Complexes of Copper and Sulfhydryl Flotation Collectors, The ..... Mar 34
Design and Calibration of a Faraday Pail for Measuring Charge Density of Mineral Grains, The Dec 445
Design Criteria for Bin Feeders .... Dec 389
Dorenfeld, Adrian C., Balberyszski, Theodore, and Cooke, Strathmore R.B.: *Flotation of Artificial Sulfide Minerals* ..... Dec 458
drilling, analysis of stress required for core discing ..... Sep 269
Durelli, A.J., Obert, Leonard, and Parks, V.J.: *Stress Required to Initiate Core Discing* ..... Sep 269

E

Econometric Approach to Measures of Productivity in Mining, An . Sep 298
Economics, see also Costs
Economics:
low cost method for making structural materials from flyashes.. Dec 404
productivity measures in mining ... Sep 298
Rocky Mountain coal resources.... Jun 186
U.S. mineral potential ..... Sep 291
water resources, Mississippi embayment ..... Jun 137
Effect of Cations on the Amine Flotation of Quartz, The ..... Dec 466
Elasticity Studies of Isotropic and Anisotropic Rock Samples .... Dec 470
Electrochemical Studies of the Xanthate-Dixanthogen System on Pyrite ..... Dec 431
electronic color sorter ..... Sep 331
Electrostatic Separation, see Concentration
Elgiliani, D.A., and Fuerstenau, M.C.: *Mechanisms Involved in Cyanide Depression of Pyrite* . Dec 437
Elgiliani, D.A., Fuerstenau, M.C., and Gutierrez, G.: *The Influence of Sodium Silicate in Nonmetallic Flotation Systems* Sep 319
Elgiliani, D.A., Fuerstenau, M.C., and Kuhn, M.C.: *The Role of Dixanthogen in Xanthate Flotation of Pyrite* ..... Jun 148
Equipment, see also Mining Equipment
Equipment:
bin dischargers, cement industry .. Mar 82
bin feeders, design criteria for.... Dec 389
rippers, application in mining..... Jun 170
truck bodies, off-highway, aluminum ..... Mar 77
Esmonde, R.A.: *Aluminum Off-Highway Truck Bodies for the Mining Industry* ..... Mar 77
Experience with Bin Dischargers in the Cement Industry ..... Mar 82
Exploration, see also Geology
Exploration:
regional metallotectonic zoning in Mexico ..... Mar 113
significance of domes and fracture intersections in the Basin and Range Province, Arizona..... Sep 276
Extractive Metallurgy, see also Beneficiation, Hydrometallurgy
Extractive Metallurgy:
electrowinning manganese, laboratory cell for ..... Sep 308
nickel recovery from oxidized ores by hydrothermal process ..... Sep 261
segregation process for refractory copper ores ..... Jun 157

F

Fegan, L.V., Jr. and Taylor, C.E., Jr.: *Automatic Control of Moisture in Pelletizing and Sintering Processes by Means of Systems Based on the Measurement of Electrical Resistance* ..... Mar 27
Finite Element Model Study of Slope Modification at the Kimbley Pit ..... Dec 525
Finkelstein, N.P.: Discussion of *The Role of the Hydrocarbon Chain in Anionic Flotation of Quartz* ..... Sep 364
Correction ..... Sep 364
Fites, D.V.: *Application of Rippers in Mining* ..... Jun 170
Fitzhugh, E.F. Jr., and Seidel, D.C.: *A Hydrothermal Process For Oxidized Nickel Ores* ..... Sep 261
Flotation, see also Beneficiation, Concentration
Flotation:
adsorption at different interfaces,

influence of ... Mar 105
Discussion ... Sep 341
adsorption of calcium, magnesium and sodium ion by quartz ... Sep 334
adsorption of long-chained amines on quartz ... Dec 418
amine, of quartz, effect of cations on ... Dec 466
anionic, calcite, role of the hydrocarbon chain ... Sep 364
Correction ... Sep 364
beneficiation of Duluth Gabbro copper-nickel ore ... Dec 421
beryl flotation with hydrofluoric and oleic acid ... Mar 80
characteristics, of pyrolusite ... Dec 453
collectors, copper and sulfhydryl, for sphalerite and pyrite depression ... Mar 34
dixanthogen adsorption on pyrite, mechanism of ... Dec 431
fluorite, as a function of ionic point imperfections ... Sep 328
incipient conditions, hydrocarbon chain length effect ... Mar 102
nonmetallic systems, influence of sodium silicate in ... Sep 319
of artificial sulfide minerals ... Dec 458
oil, of ultrafine alumina particles ... Dec 549
pyrite recovery from bituminous coal refuse ... Dec 377
pyrite, role of dixanthogen with xanthate collector ... Jun 148
pyrite-xanthate-cyanide system, relation of oxidation potential and pH to flotation response ... Dec 437
quartz, role of optical isomerism ... Jun 225
soluble salt, relation of surface charge to KCl-NaCl separations ... Mar 64
soluble salt, role of surface charge ... Mar 56
sulfidized hematite ... Mar 129
Flotation Characteristics of Pyrolusite ... Dec 453
Flotation of Artificial Sulfide Minerals ... Dec 458
Flotation of Fluorite as a Function of Ionic Point Imperfections, The ... Sep 328
Flotation of Right- and Left-Hand Quartz Using an Optically Active Collector ... Jun 225
Flotation Recovery of Pyrite From Bituminous Coal Refuse ... Dec 377
Flowsheet Changes for Decreased Moisture of Concord Mine Coal Mar 109
fluorite, flotation of ... Sep 328
flyashes, low cost method for making structural materials from ... Dec 404
Formation of Artificial Acmite Above 500°F During the Extraction of Silica From Wisconsin Gogebic Taconite By Digestion in Sodium Hydroxide Solutions — Technical Note ... Jun 192
French, Robert R.: *Beneficiation of Low-Grade Gypsum by Electronic Color Sorting* — Technical Note ... Sep 331
Fuerstenau, D.W., and Herbst, J.A.: *The Zero Order Production of Fine Sizes in Comminution and Its Implications in Simulation* ... Dec 538
Fuerstenau, D.W., and Lai, Ralph W.M.: *Liquid-Liquid Extraction of Ultrafine Particles* ... Dec 549
Fuerstenau, D.W. and Somasundaran, P.: *On Incipient Flotation Conditions* ... Mar 102
Fuerstenau, M.C., and Elgillani, D.A.: *Mechanisms Involved in Cyanide Depression of Pyrite*. Dec 437
Fuerstenau, M.C., Gutierrez, G., and Elgillani, D.A.: *The Influence of Sodium Silicate in Nonmetallic Flotation Systems* ... Sep 319
Fuerstenau, M.C., Kuhn, M.C., and Elgillani, D.A.: *The Role of Dixanthogen in Xanthate Flotation of Pyrite* ... Jun 148
Fuerstenau, M.C., and Miller, J.D.: Discussion of *The Role of the Hydrocarbon Chain in Anionic Flotation of Quartz* ... Sep 364
Correction ... Sep 364
Fuerstenau, M.C., and Rice, D.A.: *Flotation Characteristics of Pyrolusite* ... Dec 453
Fuerstenau, M.C., Seidel, D.C., and Roman, R.J.: *Mechanisms of Soluble Salt Flotation,*
Part I ... Mar 56
Part II ... Mar 64

G

Gabelman, J.W. and Krusiewski, S.V.: *Regional Metallotectonic Zoning in Mexico* ... Mar 113
Geology, see also Exploration
Geology:
Mississippi embayment water resources ... Jun 137
regional metallotectonic zoning in Mexico ... Mar 113
Santa Eulalia District, Chihuahua, Mexico ... Jun 228
slope angle research, Kimbley Pit. Dec 513
southeast Arizona, structural elements of ore search, domes and fracture intersections ... Sep 276
Geology and Mineralization of the Main Mineral Zone of the Santa Eulalia District, Chihuahua, Mexico ... Jun 228
Gravity Separation, see Concentration
Gregory, C.E.: Correction on *The Importance of Aerodynamic Aspects in the Design of Mine Shafts* ... Jun 181
Griffith, W.A.: Discussion of *The Use of Curvilinear Multiple Correlation Analysis in Computer Simulation of Complex Models* by W.H. Yarroll ... Jun 227
Grindability Measurements and the Determination of Energy-Size Parameters ... Dec 384
Grinding, see also Beneficiation, Comminution
Grinding:
batch, kinetics, solution of integro-differential equation ... Sep 359
batch, size reduction-time relationships of ... Dec 449
Bond and batch grindabilities, comparison of ... Mar 91
Discussion ... Mar 99
closed-circuit, quantitative investigation of effect on classification sharpness on ... Dec 482
langbeinite grindability measurements to determine energy-size parameters ... Dec 384
quartz, ball mill, influence of the environment on ... Dec 412
random fracture, statistics of ... Jun 219
Discussion ... Dec 409
size distribution equations, application of ... Sep 343
zero order production of fine sizes, study of ... Dec 538
Guney, Mehmet: *Hydraulic Stowing Techniques in Armutcuk Mine*. Dec 502
Gutierrez, G., Fuerstenau, M.C., and Elgillani, D.A.: *The Influence of Sodium Silicate in Nonmetallic Flotation Systems* ... Sep 319
gypsum, electronic color sorting of.. Sep 331

H

Harris, C.C.: *Batch Grinding Kinetics* ... Sep 359
Harris, C.C.: Discussion of *Statistics of Random Fracture* by L.G. Austin and R.R. Klimpel. Dec 409
Harris, C.C.: *Size Reduction-Time Relationships of Batch Grinding* ... Dec 449
Harris, C.C.: *The Application of Size Distribution Equations to Multi-Event Comminution Processes* ... Sep 343
Health and Safety:
in coal mines, advantages of hydraulic stowing ... Dec 502
mine subsidence, prediction of through model analysis ... Dec 488
Heavy Liquid Recovery Systems in Mineral Beneficiation ... Mar 15
Herbst, J.A., and Fuerstenau, D.W.: *The Zero Order Production of Fine Sizes in Comminution and Its Implications in Simulation* ... Dec 538
Hewitt, William Paxton: *Geology and Mineralization of the Main Mineral Zone of the Santa Eulalia District, Chihuahua, Mexico* ... Jun 228
High-Temperature Thin-Film Sulfidization of Hematite for Recovery by Flotation ... Mar 129
Holland, Charles T., and Olsen, David A.: *Interfacial Friction, Moisture and Coal Pillar Strength* ... Sep 323
Hopstock, David M., and Agar, Gordon E.: *The Effect of Cations on the Amine Flotation of Quartz* ... Dec 466
Hudy, J. Jr.: *Quality Control of Coal: Testing of the Cendrex X-Ray Ash Meter* ... Jun 174
Hukki, R.T., and Allenius, Hans: *A Quantitative Investigation of the Closed Grinding Circuit* .. Dec 482
Hydraulic Stowing Techniques in Armutcuk Mine ... Dec 502
Hydrogenated Coal Bitumen — A New Material for Highway Construction — Technical Note ... Jun 217
hydrology, of Mississippi embayment Jun 137
Hydrometallurgy, see also Beneficiation
Hydrometallurgy:
artificial acmite formation during silica extraction from taconite Jun 192
cyanide depression of pyrite, mechanisms involved in ... Dec 437
dixanthogen adsorption on pyrite, mechanism of ... Dec 431
electrowinning manganese, continuous-weighing laboratory cell for ... Sep 308
flotation of artificial sulfide minerals ... Dec 458
hydrothermal process for oxidized nickel ores ... Sep 261
xanthate flotation of pyrite, role of dixanthogen ... Jun 148
Hydrothermal Process For Oxidized Nickel Ores, A ... Sep 261

I

Importance of Aerodynamic Aspects in the Design of Mine Shafts, The, Correction ... Jun 181
Incipient Flotation Conditions, On .. Mar 102
Industrial Minerals:
calcite, anionic flotation, role of the hydrocarbon chain ... Sep 364
Correction ... Sep 364
cement, plants, bin discharger design for ... Mar 82
fluorite, flotation of ... Sep 328
gypsum, low-grade, electronic color sorting of ... Sep 331
making structural materials from flyashes ... Dec 404
sulfur, recovery from petroleum gases and liquids ... Sep 314
Influence of Sodium Silicate in Nonmetallic Flotation Systems, The ... Sep 319

Influence of the Environment on the Comminution of Quartz, The .. Dec 412
Infrared Study of the Activation and Flotation of Beryl with Hydrofluoric and Oleic Acid, An, Discussion ..... Mar 80
In Situ Stress Measurements From Tilts Induced by Mining Operations ..... Sep 311
Instrumentation, see also Automation, Beneficiation, Computers, Mining Methods, Plant Design
Instrumentation:
Cendrex X-ray ash meter for coal .. Jun 174
compression testers for iron ore pellets ..... Dec 475
electronic color sorter ..... Sep 331
Faraday pail for measuring electric charge, design and calibration of ..... Dec 445
tiltmeters, for *in situ* mining stress measurements ..... Sep 311
Interfacial Friction, Moisture and Coal Pillar Strength ..... Sep 323
Iron Ores:
constituents, abnormal behavior of, and their effect on blast furnace operation ..... Mar 1
manganiferous, reduction roasting of ..... Jun 204
Mesabi semitaconites, high-intensity wet magnetic separation of ..... Jun 194
Minnesota, mining productivity of.. Sep 298
pellets, compression testing of ... Dec 475
pellets, strength of, effect of ultrafine-particle concentration on ..... Dec 533
reduction and magnetic separation of, by the R-N process ..... Mar 71
taconite, artificial acmite formation during silica extraction from ..... Jun 192
Iwasaki, I., and Carlson, W.J. Jr.: *A Continuous-Weighing Laboratory Cell for Electrowinning Manganese* ..... Sep 308
Iwasaki, I., and Takahashi, K.: *Flotation of Right- and Left-Hand Quartz Using an Optically Active Collector* ..... Jun 225
Iwasaki, I., and Vifian, A.: *Mineralogical and Beneficiation Studies of the Copper-Nickel Bearing Duluth Gabbro* ..... Dec 421

J

Jackling Lecture, 1968: *What Is A "Have Not" Nation?* ..... Sep 291

K

Kaarsberg, Ernest A.: *Elasticity Studies of Isotropic and Anisotropic Rock Samples* .... Dec 470
Karpinski, John M., and Cahn, David S.: *Compression Testing of Green and Dry Iron Ore Pellets* Dec 475
Kennecott Copper Corp.:
Kimbley Pit slope modification, research for ..... Dec 513
Kimbley Pit slope modification, model study of ..... Dec 525
Kim, Y.C. and Manula, C.B.: *Optimum Production Planning* .... Mar 22
Klimpel, R.R., and Austin, L.G.: *Statistics of Random Fracture.* Jun 219
Discussion ..... Dec 409
Kokal, H.R., Lawver, J.E., and Wright, J.L.: *The Behavior of Mesabi Iron and Silicate Minerals in 20-Kilogauss Fields* ..... Jun 194
Krusiewski, S.V. and Gabelmen, J.W.: *Regional Metallotectonic Zoning in Mexico* ..... Mar 113
Kuhn, M.C., Fuerstenau, M.C., and Elgillani, D.A.: *The Role of Dixanthogen in Xanthate Flotation of Pyrite* ..... Jun 148

L

Lai, Ralph W.M., and Fuerstenau, D.W.: *Liquid-Liquid Extraction of Ultrafine Particles* ..... Dec 549
langbeinite, dry, grindability of .... Dec 384
Lawver, J.E., Wright, J.L., and Kokal, H.R.: *The Behavior of Mesabi Iron and Silicate Minerals in 20-Kilogauss Fields* .. Jun 194
Lawver, James E., and Wright, James L.: *The Design and Calibration of a Faraday Pail for Measuring Charge Density of Mineral Grains* ..... Dec 445
lead production and consumption ... Sep 291
Lee, K.H. and Smith, R.W.: *A Comparison of Data from Bond Type Simulated Closed-Circuit and Batch Type Grindability Tests* ..... Mar 91
Discussion ..... Mar 99
Leonard, J.W., Shafer, H.E. Jr., and Cockrell, C.F.: *A New and Low Cost Method for Making Structural Materials from Problem Flyashes* ..... Dec 404
Lex, H.A. and Schulz, N.F.: *Reduction and Magnetic Separation of Manganiferous Iron Ores by the R-N Process* ..... Mar 71
Lin, I.J., and Mitzmager, A.: *The Influence of the Environment on the Comminution of Quartz* . Dec 412
Liquid-Liquid Extraction of Ultrafine Particles ..... Dec 549
Lovell, H.L., Rao, B.V.P., and Simkovich, G.: *The Flotation of Fluorite as a Function of Ionic Point Imperfections* .... Sep 328

M

Majima, H., and Takeda, M.: *Electrochemical Studies of the Xanthate-Dixanthogen System on Pyrite* ..... Dec 431
manganese, electrowinning of ..... Sep 308
Manula, C.B. and Kim, Y.C.: *Optimum Production Planning* .... Mar 22
Materials Handling, see also Trucks
Materials Handling:
bin dischargers, in the cement industry ..... Mar 82
bin feeders, design criteria for .... Dec 389
ore pass design, based on soil plasticity ..... Mar 42
McConnell, R.K. Jr., and Simon, Ivan: *In Situ Stress Measurements From Tilts Induced by Mining Operations* ..... Sep 311
Mechanisms Involved in Cyanide Depression of Pyrite ..... Dec 437
Mechanisms of Soluble Salt Flotation, Part I ..... Mar 56
Part II ..... Mar 64
Merrill, Robert H.: *Bureau Contribution to Slope Angle Research at the Kimbley Pit, Ely, Nevada* ..... Dec 513
Miller, J.D., and Fuerstenau, M.C.: Discussion of *The Role of the Hydrocarbon Chain in Anionic Flotation of Quartz* ..... Sep 364
Correction ..... Sep 364
Mine Subsidence and Model Analysis Dec 488
Mineralogical and Beneficiation Studies of the Copper-Nickel Bearing Duluth Gabbro ..... Dec 421
Mining Equipment:
aluminum truck bodies ..... Mar 77
rippers ..... Jun 170
Mining Methods, see also Drilling, Open Pit Mining, Underground Mining
Mining Methods:
coal pillar design ..... Jun 182
hydraulic stowing techniques in coal mines ..... Dec 502
ripping ..... Jun 170
Mitzmager, A., and Lin, I.J.: *The Influence of the Environment on the Comminution of Quartz* . Dec 412

N

New and Low Cost Method for Making Structural Materials from Problem Flyashes, A ..... Dec 404
Newcomb, Richard T.: *An Econometric Approach to Measures of Productivity in Mining* ..... Sep 298
Nickel:
copper-nickel bearing Duluth Gabbro, studies of ..... Dec 421
ores, oxidized, hydrothermal process for ..... Sep 261

O

Obert, Leonard, Durelli, A.J., and Parks, V.J.: *Stress Required to Initiate Core Discing* ..... Sep 269
Oil, see Petroleum
Olsen, David A., and Holland, Charles T.: *Interfacial Friction, Moisture and Coal Pillar Strength* ..... Sep 323
Open Pit Mining, see also Drilling, Mining Methods
Open-Pit Mining:
aluminum off-highway truck bodies for the mining industry ..... Mar 77
rippers, application of ..... Jun 170
slope angle research, Kimbley pit . Dec 513
slope modification, finite element model study of ..... Dec 525
Operations Research:
model, linear programming, for production scheduling ..... Mar 22
multiple correlation analysis in computer simulation of complex models ..... Jun 227
Optimum Production Planning ..... Mar 22
Oszter, Zoltan F.: *Experience with Bin Dischargers in the Cement Industry* ..... Mar 82

P

Paley report ..... Sep 291
Pariseau, W.G. and Pfleider, E.P.: *Soil Plasticity and the Movement of Material in Ore Passes* ..... Mar 42
Pariseau, William G., and Dahl, H. Douglas: *Mine Subsidence and Model Analysis* ..... Dec 488
Parks, V.J., Durelli, A.J., and Obert, Leonard: *Stress Required to Initiate Core Discing* Sep 269
Peck, A.S. and Wadsworth, M.E.: *An Infrared Study of the Activation and Flotation of Beryl with Hydrofluoric and Oleic Acid,* Discussion ..... Mar 80
petroleum gases and liquids, recovery of sulfur from ..... Sep 314
Pfleider, E.P. and Pariseau, W.G.: *Soil Plasticity and the Movement of Material in Ore Passes* ..... Mar 42
Photoelastic Analysis of a Composite Model ..... Dec 495
Pinkney, E.T., and Plint, N.: *Treatment of Refractory Copper Ores by the Segregation Process* ..... Jun 157
Correction ..... Dec 436
Plant Design:
beneficiation, heavy liquid recovery ..... Mar 15
bin feeders, design criteria for .... Dec 389
cement, bin dischargers ..... Mar 82
cybernetics, for use with complex systems ..... Jun 227
flowsheet for reducing moisture in clean coal ..... Mar 109
separation, high-intensity wet magnetic, semitaconites ..... Jun 194
Plint, N., and Pinkney, E.T.: *Treatment of Refractory Copper Ores by the Segregation Process* ..... Jun 157

Correction ..... Dec 436
Pyrite:
cyanide depression of, mechanisms involved in ..... Dec 437
dixanthogen adsorption on, mechanism of ..... Dec 431
flotation of ..... Jun 148
recovery from bituminous coal .... Dec 377
pyrolusite, flotation characteristics of ..... Dec 453
Pyrometallurgy, see also Agglomeration, Beneficiation
Pyrometallurgy:
abnormal behavior of iron ore constituents during reduction .... Mar 1
copper segregation ..... Jun 157
Correction ..... Dec 436
reduction and magnetic separation of manganiferous iron ores by the R-N process ..... Mar 71
reduction roasting of manganiferous iron ores ..... Jun 204
sulfidization of hematite for flotation recovery ..... Mar 129

Q

Quality Control of Coal: Testing of the Cendrex X-Ray Ash Meter. Jun 174
Quantitative Investigation of the Closed Grinding Circuit, A ... Dec 482
Quartz:
activation of ..... Sep 334
adsorption of long-chained amines on ..... Dec 418
amine flotation of, effect of cations on ..... Dec 466
amine flotation of, role of optical isomerism ..... Jun 225
comminution of, influence of the environment on ..... Dec 412
electrostatic separation of, effect of temperature ..... Sep 367
flotation of, effect of hydrocarbon chain length ..... Mar 102
grains, measuring charge density of ..... Dec 445
Quartz—Gangue or Mineral: The Effect of Temperature on Its Electrostatic Separation ..... Sep 367

R

Rao, B.V.P., Lovell, H.L., and Simkovich, G.: *The Flotation of Fluorite as a Function of Ionic Point Imperfections* .... Sep 328
Reduction and Magnetic Separation of Manganiferous Iron Ores by the R-N Process ..... Mar 71
Regional Metallotectonic Zoning in Mexico ..... Mar 113
Relationship Between Adsorption at Different Interfaces and Flotation Behavior, The ..... Mar 105
Discussion ..... Sep 341
Research:
adsorption of calcium, magnesium and sodium ion by quartz ..... Sep 334
adsorption of long-chained amines on quartz ..... Dec 418
amine flotation of quartz, effect of cations on ..... Dec 466
anionic flotation of calcite, role of the hydrocarbon chain ..... Sep 364
Correction ..... Sep 364
artificial acmite formation during silica extraction from taconite Jun 192
coal pillar design, similitude applied to ..... Jun 182
coal pillar strength, influence of interfacial coefficient of friction ..... Sep 323
comminution of quartz, influence of the environment on ..... Dec 412
compression testing of iron ore pellets ..... Dec 475
cyanide depression of pyrite, mechanisms involved in ..... Dec 437
depression of sphalerite and pyrite with copper and sulfhydryl collectors ..... Mar 34
design and calibration of Faraday pail for measuring charge density of mineral grains ..... Dec 445
elasticity studies of isotropic and anisotropic rock samples ..... Dec 470
electrostatic separation of quartz, effect of temperature on ..... Sep 367
electrowinning manganese, continuous-weighing laboratory cell for ..... Sep 308
energy-particle size relationship in dry ball mill grinding of langbeinite ..... Dec 384
Fe-Mn-SiO_2-O_2 system applied to reduction roasting of manganiferous iron ores ..... Jun 204
finite element model study of slope modification ..... Dec 525
flotation behavior, influence of adsorption at different interfaces ..... Mar 105
Discussion ..... Sep 341
flotation characteristics of pyrolusite, study of ..... Dec 453
flotation, nonmetallic, influence of sodium silicate in ..... Sep 319
flotation of artificial sulfide minerals ..... Dec 458
flotation of fluorite, influence of ionic point imperfections ..... Sep 328
flotation process to recover pyrite from bituminous coal refuse .. Dec 377
grindability tests, Bond and batch, comparison of data ..... Mar 91
Discussion ..... Mar 99
heavy liquid recovery systems .... Mar 15
incipient flotation conditions, study of hydrocarbon chain length effect on ..... Mar 102
infrared study of beryl flotation with hydrofluoric and oleic acid ..... Mar 80
iron ore constituents, study of abnormal behavior of, and effects on blast furnace operation .... Mar 1
iron ore pellet strength, effect of ultrafine-particle concentration on ..... Dec 533
liquid-liquid extraction of ultrafine particles ..... Dec 549
mine subsidence and model analysis ..... Dec 488
mineralogical and beneficiation studies of Duluth Gabbro copper-nickel ore ..... Dec 421
nickel recovery from oxidized ores by hydrothermal process ..... Sep 261
ore pass drawdown, analysis as soil plasticity problem ..... Mar 42
photoelastic stress analysis of a composite model ..... Dec 495
quantitative investigation of effect of classification sharpness on closed-circuit grinding ..... Dec 482
quartz, amine flotation of, role of optical isomerism ..... Jun 225
R-N process, for reduction and magnetic separation of manganiferous iron ores ..... Mar 71
separation, high-intensity wet magnetic, semitaconites ..... Jun 194
size reduction-time relationships of batch grinding ..... Dec 449
slope angle, at Kimbley Pit ..... Dec 513
soluble salt flotation, relation of surface charge to KCl-NaCl separations ..... Mar 64
soluble salt flotation, role of surface charge in ..... Mar 56
stress, core discing, photoelastic analysis of ..... Sep 269
sulfidization of hematite for flotation recovery ..... Mar 129
xanthate-dixanthogen system on pyrite, electrochemical studies of ..... Dec 431
zero order production phenomenon, studied with batch grinding model ..... Dec 538
Resources:
mineral, U.S. ..... Sep 291
mineralization of the Santa Eulalia District, Chihuahua, Mexico .. Jun 228
Rocky Mountain coal ..... Jun 186
water, Mississippi embayment .... Jun 137
Rice, D.A., and Fuerstenau, M.C.: *Flotation Characteristics of Pyrolusite* ..... Dec 453
Rock Mechanics:
coal pillar design, theory of similitude in ..... Jun 182
coal pillar strength, influence of interfacial coefficient of friction ..... Sep 323
elasticity studies of isotropic and anisotropic rock samples ..... Dec 470
extreme value statistics, application to test data ..... Sep 372
finite element model study of slope modification ..... Dec 525
in situ stress measurements from tilts induced by mining ..... Sep 311
mine subsidence and model analysis ..... Dec 488
photoelastic analysis of a composite model ..... Dec 495
slope angle research at Kimbley Pit ..... Dec 513
soil plasticity, in analysis of ore pass drawdown ..... Mar 42
stress, core discing, photoelastic analysis of ..... Sep 269
Rocky Mountain Coal Resources and Their Potential Utilization ... Jun 186
Role of Dixanthogen in Xanthate Flotation of Pyrite, The ..... Jun 148
Role of the Hydrocarbon Chain in Anionic Flotation of Quartz, The — Discussion ..... Sep 364
Correction ..... Sep 364
Roman, R.J., Fuerstenau, M.C., and Seidel, D.C.: *Mechanisms of Soluble Salt Flotation, Part I* ..... Mar 56
Part II ..... Mar 64

S

Safety (see Health and Safety)
Sandvik, Knut L.: Discussion of *The Relationship Between Adsorption at Different Interfaces and Flotation Behavior* by P. Somasundaran ..... Sep 341
Sandvik, Knut L., and Solbakken, Aage: *The Adsorption of Long-Chained Amines on Quartz*—Technical Note ..... Dec 418
Savage, K.I., and Sun, S.C.: *Flotation Recovery of Pyrite From Bituminous Coal Refuse* ..... Dec 377
Schulz, N.F. and Lex, H.A.: *Reduction and Magnetic Separation of Manganiferous Iron Ores by the R-N Process* ..... Mar 71
Scollon, T. Reed: *Rocky Mountain Coal Resources and Their Potential Utilization* ..... Jun 186
Seidel, D.C., and Fitzhugh, E.F. Jr.: *A Hydrothermal Process For Oxidized Nickel Ores* ..... Sep 261
Seidel, D.C., Roman, R.J., and Fuerstenau, M.C.: *Mechanisms of Soluble Salt Flotation, Part I* ..... Mar 56
Part II ..... Mar 64
Shafer, H.E., Jr., Cockrell, C.F. and Leonard, J.W.: *A New and Low Cost Method for Making Structural Materials from Problem Flyashes* ..... Dec 404
Sieber, T.G. and Tiemann, T.D.: *Formation of Artificial Acmite Above 500°F During the Extraction of Silica From Wisconsin Gogebic Taconite By Digestion in Sodium Hydroxide Solutions*—Technical Note ... Jun 192
Silver, H.F.: *Hydrogenated Coal Bitumen—A New Material for*

Highway Construction— Technical Note ..... Jun 217
Simkovich, G., Rao, B.V.P., and Lovell, H.L.: *The Flotation of Fluorite as a Function of Ionic Point Imperfections* .... Sep 328
Simon, Ivan, and McConnell, R.K. Jr.: *In Situ Stress Measurements From Tilts Induced by Mining Operations* ..... Sep 311
Size Reduction-Time Relationships of Batch Grinding ..... Dec 449
Smith, R.W. and Lee, K.H.: *A Comparison of Data from Bond Type Simulated Closed-Circuit and Batch Type Grindability Tests* Mar 91
Discussion ..... Mar 99
Smith, Ross W., and Smolik, T. James: Discussion of *An Infrared Study of the Activation and Flotation of Beryl with Hydrofluoric and Oleic Acid* by A.S. Peck and M.E. Wadsworth ..... Mar 80
Smolik, T. James, and Smith, Ross W.: Discussion of *An Infrared Study of the Activation and Flotation of Beryl with Hydrofluoric and Oleic Acid* by A.S. Peck and M.E. Wadsworth .... Mar 80
Soil Plasticity and the Movement of Material in Ore Passes ..... Mar 42
Solbakken, Aage, and Sandvik, Knut L.: *The Adsorption of Long-Chained Amines on Quartz—* Technical Note ..... Dec 418
Somasundaran, P.: *The Relationship Between Adsorption at Different Interfaces and Flotation Behavior* ..... Mar 105
Discussion ..... Sep 341
Somasundaran, P. and Fuerstenau, D.W.: *On Incipient Flotation Conditions* ..... Mar 102
Statistics of Random Fracture ..... Jun 219
Discussion ..... Dec 409
Steininger, Jacques: *The Depression of Sphalerite and Pyrite by Basic Complexes of Copper and Sulfhydryl Flotation Collectors* ..... Mar 34
Stone, Rodney L., and Cahn, David S.: *Ultrafine-Particle Concentration and the Strength of Unfired Iron Ore Pellets* ..... Dec 533
Stress Required to Initiate Core Discing ..... Sep 269
Structural Elements of Ore Search in the Basin and Range Province, Southeast Arizona: Domes and Fracture Intersections ..... Sep 276
sulfide minerals, artificial, flotation of ..... Dec 458
Sulfur From Petroleum Gases and Liquids ..... Sep 314
Sun, S.C., and Savage, K.I.: *Flotation Recovery of Pyrite From Bituminous Coal Refuse* ..... Dec 377
System Fe-Mn-SiO_2-O_2 and its Application to the Beneficiation of Manganiferous Iron Ores by Reduction Roasting, The ..... Jun 204

T

Takahashi, K., and Iwasaki, I.: *Flotation of Right- and Left-Hand Quartz Using an Optically Active Collector* ..... Jun 225
Takeda, M., and Majima, H.: *Electrochemical Studies of the Xanthate-Dixanthogen System on Pyrite* ..... Dec 431
Taylor, C.E., Jr. and Fegan, L.V., Jr.: *Automatic Control of Moisture in Pelletizing and Sintering Processes by Means of Systems Based on the Measurement of Electrical Resistance* ..... Mar 27
Theory of Similitude as a First Approximation in the Design of Coal Pillars ..... Jun 182
Tiemann, T.D., and Sieber, T.G.: *Formation of Artificial Acmite Above 500°F During the Extraction of Silica From Wisconsin Gogebic Taconite By Digestion in Sodium Hydroxide Solutions* — Technical Note ... Jun 192
Tippin, R.B. and Tveter, E.C.: *Heavy Liquid Recovery Systems in Mineral Beneficiation* . Mar 15
Treatment of Refractory Copper Ores by the Segregation Process ... Jun 157
Correction ..... Dec 436
trucks, off-highway, aluminum bodies Mar 77
Tufford, G.L., and Bleifuss, R.L.: *The System Fe-Mn-SiO_2-O_2 and its Application to the Beneficiation of Manganiferous Iron Ores by Reduction Roasting* .. Jun 204
Tveter, E.C. and Tippin, R.B.: *Heavy Liquid Recovery Systems in Mineral Beneficiation* ..... Mar 15

U

Ultrafine-Particle Concentration and the Strength of Unfired Iron Ore Pellets ..... Dec 533
Underground Mining, see also Drilling, Mining Equipment, Mining Methods
Underground Mining:
coal pillar design ..... Jun 182
coal pillar strength, influence of interfacial coefficient of friction ..... Sep 323
extreme value statistics, application to forecasting of rock behavior ..... Sep 372
hydraulic stowing techniques in coal mines ..... Dec 502
in situ stress measurements from tilts ..... Sep 311
ore pass drawdown, soil plasticity analysis of ..... Mar 42
United States Bureau of Mines:
model study of slope modification at Kimbley Pit ..... Dec 525
slope angle research at the Kimbley Pit ..... Dec 513
USBM, see United States Bureau of Mines
Use of Curvilinear Multiple Correlation Analysis in Computer Simulation of Complex Models, The, Discussion ..... Jun 227

V

Vifian, A., and Iwasaki, I: *Mineralogical and Beneficiation Studies of the Copper-Nickel Bearing Duluth Gabbro* ..... Dec 421

W

Wadsworth, M.E. and Peck, A.S.: *An Infrared Study of the Activation and Flotation of Beryl with Hydrofluoric and Oleic Acid—* Discussion ..... Mar 80
Wadsworth, Milton E. and Chatwin, Terrence D.: *High-Temperature Thin-Film Sulfidization of Hematite for Recovery by Flotation* ..... Mar 129
Wane, Malcolm T., and Yegulalp, Tuncel M.: *Application of Extreme Value Statistics to Test Data* ..... Sep 372
Watanabe, S. and Yoshinaga M.: *The Abnormal Behavior of Some Ore Constituents and Their Effect on Blast Furnace Operation* ..... Mar 1
Water Resources of the Mississippi Embayment East of the Mississippi River ..... Jun 137
Wertz, Jacques B.: *Structural Elements of Ore Search in the Basin and Range Province, Southeast Arizona: Domes and Fracture Intersections* ..... Sep 276
What Is A "Have Not" Nation?— 1968 Jackling Lecture ..... Sep 291
Wright, J.L., Lawver, J.E., and Kokal, H.R.: *The Behavior of Mesabi Iron and Silicate Minerals in 20-Kilogauss Fields* ... Jun 194
Wright, James L., and Lawver, James E.: *The Design and Calibration of a Faraday Pail for Measuring Charge Density of Mineral Grains* ..... Dec 445

Y

Yarroll, W.H.: *The Use of Curvilinear Multiple Correlation Analysis in Computer Simulation of Complex Models,* Discussion ..... Jun 227
Yegulalp, Tuncel M., and Wane, Malcolm T.: *Application of Extreme Value Statistics to Test Data* ..... Sep 372
Yoshinaga, M. and Watanabe, S.: *The Abnormal Behavior of Some Ore Constituents and Their Effect on Blast Furnace Operation* ..... Mar 1

Z

Zero Order Production of Fine Sizes in Comminution and Its Implications in Simulation, The ... Dec 538
zinc production and consumption ... Sep 291

Authors Index to Volume 242

Transactions of the Metallurgical Society of AIME

AARONSON H I.....V242 591-596
.....V242 731-734
.....V242 738-740
.....V242 1393-1403
.....V242 1437-1448
ABRAHAM J K.....V242 2365-2367
ACHTER M R.....V242 196-205
ACTON A F.....V242 1555-1558
ADAMS K H.....V242 132-138
ADAMS ROY.....V242 139-144
AHLERS M.....V242 1267-1274
AIREY G P.....V242 1853-1863
ALDEN T H.....V242 825-832
ALFRED L C R.....V242 1575-1586
ALTSTETTER CARL.....V242 139-144
ANANTHAKAMAN T R.....V242 2025-2027
ANDERSON E.....V242 115-119
ANTOLOVICH STEPHEN D.....V242 2371-2373
ANTONY K C.....V242 1454-1456
ANUSAVICE K J.....V242 2027-2029
ARONIN L R.....V242 2423-2431
ARORA O P.....V242 724-725
ASAKI Z.....V242 896-902
ASUNMAA S K.....V242 1635-1643
ATKINSON D.....V242 1135-1143
AYERS J D.....V242 1469-1470
AZUMA KIYOSHI.....V242 1025-1034

BACKOFEN W A.....V242 329-331
.....V242 1587-1594
BAGSHAW T.....V242 343
BAILEY W A.....V242 2063-2067
BAKER COLIN.....V242 1989-1995
BALDWIN D H.....V242 661-669
BALK P.....V242 539-545
BALZHISER RICHARD E.....V242 1809-1813
BANYA SHIRO.....V242 940-946
BARALIS G.....V242 1927-1932
BARKER JAMES H.....V242 2147-2152
BARMORE WILLIS L.....V242 1466-1467
BARRAND P.....V242 2299-2303
BATES HERBERT E.....V242 760-761
BECHTOLD J H.....V242 716-719
BECK F H.....V242 1049-1056
BEER SYLVAN Z.....V242 424-428
.....V242 428-432
BEHERA S K.....V242 2343-2346
BELL J R.....V242 2305-2308
BELL R L.....V242 2479-2484
BENFORD J G.....V242 1763-1764
BENSON R B JR.....V242 2199-2205
BENZ M G.....V242 1067-1070
BERENBAUM L.....V242 502-511
BERGERON M.....V242 853-858
BERNDT A F.....V242 340-341
BEVER M B.....V242 371-373
.....V242 1453-1454
.....V242 2367-2369
BEVER MICHAEL B.....V242 272-277
.....V242 278-283
.....V242 880-884
BEVIS M.....V242 1555-1558
.....V242 1559-1562
BIEBER C G.....V242 2399-2414
BIERLEIN J C.....V242 1431-1436
BILELLO JOHN C.....V242 703-708
BILONI H.....V242 1121-1125
BIRK RICHARD.....V242 523-526
BIRKBECK G.....V242 1595-1597
.....V242 2217-2220
BISHOP G H.....V242 1343-1351
BLACKBURN M J.....V242 2461-2469
BLACKBURN R D.....V242 2-4
BLAKEMORE J S.....V242 332-333
.....V242 333-335
BLOCK F E.....V242 995-1000
BLOSSEY ROBERT G.....V242 2457-2459
BODSWORTH C.....V242 1135-1143
BOLLING G F.....V242 153-154
BOLSAITIS P.....V242 215-225
.....V242 225-231
BONEFACIC A.....V242 1461

BONFIELD W.....V242 2163-2167
BORCH N R.....V242 1933-1936
BORG R J.....V242 1503-1507
BOWERS G M.....V242 546-550
BRAGER H R.....V242 2010-2011
BRAILSFORD A D.....V242 738-740
BREHM W F JR.....V242 1205-1210
BREINAN E.....V242 2281-2286
BRETT J.....V242 1973-1979
.....V242 2121-2127
BREYER N N.....V242 2359-2362
BROOKES M E.....V242 31-34
BROOME EUGENE F.....V242 2177-2184
BROWN BARBARA S.....V242 2024-2025
BROWN H L.....V242 1751-1752
BROWN L C.....V242 1182-1184
.....V242 1353-1357
.....V242 2343-2346
BROWN R M.....V242 1689-1694
BRUSH EDWIN F.....V242 35-41
BRYANT L F.....V242 1145-1148
BUCHANAN EDWARD R.....V242 2022-2024
BUCHER J H.....V242 2305-2308
BUCHER J T.....V242 1605-1611
BUHR R K.....V242 853-858
BURGERS W G.....V242 669-673
BURNS JAMES W.....V242 432-436
BUTLER E P.....V242 2099-2106
.....V242 2107-2109

CAHN JOHN W.....V242 166-180
CAHOON J R.....V242 757-759
CALAIS DANIEL.....V242 1679-1683
CALAWA A R.....V242 374-383
CAMPBELL J.....V242 264-268
.....V242 268-271
.....V242 1464-1465
CANNON W A.....V242 1635-1643
CAPLAN I L.....V242 724-725
CARLSON O N.....V242 846-852
CARPENTER S H.....V242 967-971
CARR R G.....V242 918-921
CARROLL K G.....V242 338-339
CARSON K R.....V242 956-958
.....V242 1413-1418
CASEY H C JR.....V242 406-412
CASTLEMAN L.....V242 1973-1979
CASTLEMAN L S.....V242 750-751
CHAKLADER A C D.....V242 1117-1120
CHALMERS B.....V242 690-698
CHANDRASEKARAN L.....V242 1661-1663
CHANG Y A.....V242 700-702
.....V242 1509-1515
CHATFIELD D A.....V242 66-71
CHEADLE B A.....V242 1468-1469
CHENG C Y.....V242 890-895
.....V242 2008-2010
CHIANG P T.....V242 145-149
CHIANG PING WANG.....V242 2229-2236
CHIAO W F.....V242 1543-1551
CHILDS W J.....V242 256-263
.....V242 736-738
.....V242 1517-1521
.....V242 2305-2308
CHIOTTI P.....V242 1167-1171
CHIPMAN JOHN.....V242 35-41
.....V242 940-946
CHRIST B W.....V242 1915-1925
CHU T L.....V242 532-539
CLARK A H.....V242 1173-1180
CLINE CARL F.....V242 1466-1467
CLINE H E.....V242 1613-1618
.....V242 1823-1830
CLINE R S.....V242 1013-1024
.....V242 1476-1478
CLOUGHERTY E V.....V242 1077-1082
COATES D E.....V242 800-809
COLE G S.....V242 153-154
CONN P K.....V242 626-630
CONNER R A JR.....V242 2075-2080
CONRAD H.....V242 979-986

CONRAD H.....V242 987-994
.....V242 2081-2089
COOK H E.....V242 1599-1603
COONS W C.....V242 343-345
CORLEY R A.....V242 588-591
COSKUN A.....V242 253-255
COURTNEY T H.....V242 2263-2270
COX R H.....V242 461-464
CRAIG G B.....V242 1881-1890
CRAIG J V.....V242 1479-1481
CRAIG JAMES A.....V242 1809-1813
CRAWLEY A F.....V242 819-822
.....V242 859-862
.....V242 1483-1484
.....V242 2237-2238
.....V242 2309-2311
CROSSLEY F A.....V242 726-730
CROSSMAN F W.....V242 2441-2452
CROWTHER P.....V242 2169-2171

DAHLGREN S D.....V242 126-132
.....V242 1865-1867
DAINES WELDON L.....V242 565-575
DAMIANO V.....V242 2081-2089
DAMIANO V V.....V242 979-986
.....V242 987-994
.....V242 2423-2431
DANIELS R D.....V242 1327-1333
DANN R K.....V242 2199-2205
DANTONIO C D.....V242 160-161
DANTONIO C R.....V242 2295-2297
DARKEN L S.....V242 1997-2005
DAS B N.....V242 436-441
DAS G.....V242 2191-2198
DATTA R K.....V242 714-716
DAVIDSON I M.....V242 1135-1143
DAVIS K G.....V242 2091-2097
DAVIS T S.....V242 714-716
DAVISON J E.....V242 2045-2049
.....V242 2051-2054
DAYANANDA M A.....V242 885-890
.....V242 1369-1372
DE ANGELIS ROBERT J.....V242 2147-2152
DE HOFF R T.....V242 608-611
DEAL B E.....V242 512-523
DEAN P J.....V242 384-400
DEHOFF R T.....V242 2027-2029
DELAEY LUC.....V242 1849-1851
DELAMORE G W.....V242 1478-1479
DESANTE D F.....V242 1473-1475
DESRE PIERRE J.....V242 1231-1232
DESY D H.....V242 2069-2073
DEVEREUX OWEN F.....V242 795-799
DHEURLE F.....V242 502-511
DHINDAW B K.....V242 1761
DINDA S.....V242 2359-2362
DODD R A.....V242 347-349
.....V242 771-776
.....V242 1431-1436
DOERING H VON E.....V242 724-725
DOI T.....V242 1793-1800
DOMIAN H A.....V242 738-740
DORN J E.....V242 890-895
.....V242 1449-1452
DORWARD R C.....V242 1470-1472
.....V242 2055-2061
DOUTHWAITE R M.....V242 1595-1597
DOWNEY J W.....V242 2075-2080
DUDERSTADT E C.....V242 626-630
DUGGIN M J.....V242 1091-1100
DUNN WILLIAM W.....V242 2129-2132
DUPUY MICHEL.....V242 1679-1683
DWIGHT A E.....V242 340-341
.....V242 2075-2080
DYSON N F.....V242 1815-1821

EIFERT J R.....V242 66-71
ELDRIDGE J M.....V242 539-545
ELLIOTT J F.....V242 253-255
ELLIOTT JOHN F.....V242 929-935
.....V242 2143-2145
ENGELL H J.....V242 749-750
ENGELMAIER WERNER.....V242 1713-1718
ENGLAND ROBERT E.....V242 444-448
ENGLISH W D.....V242 1635-1643
EPSTEIN MICHAEL.....V242 2355-2357
EPSTEIN S G.....V242 1771-1774
ETIENNE M.....V242 1462-1464
ETTENBERG M.....V242 1801-1807

EVANS K R.....V242 648-653
EVANS W J.....V242 1303-1307

FARRAR P A.....V242 755-756
FASISKA E J.....V242 765-766
FAWLEY R.....V242 771-776
FEARON E O.....V242 1559-1562
FELTNER C E.....V242 1253-1257
FIEDLER H C.....V242 1457-1458
FINCHER L C.....V242 2069-2073
FINN M.....V242 374-383
FIORE N F.....V242 2363-2364
FISCHER G J.....V242 2295-2297
FISCHER J J.....V242 2014-2015
FISHER E S.....V242 1575-1586
FISHER ROBERT J.....V242 612-618
FLEMINGS M C.....V242 41-49
.....V242 50-55
FLINN PAUL A.....V242 1419-1430
FLORIDIS T P.....V242 161-162
FLYNN D R.....V242 844-846
.....V242 876-880
FONTANA M G.....V242 1049-1056
FORBES D H.....V242 75-78
FORGENG W D JR.....V242 1249-1252
FOTOCH M O ABOEL.....V242 1449-1452
FRANK W.....V242 749-750
FRAWLEY J J.....V242 256-263
.....V242 736-738
.....V242 1517-1521
FREDERICK S F.....V242 2063-2067
FRIEDMAN S.....V242 2121-2127
FRUEHAN RICHARD J.....V242 2007-2008
FRYXELL R E.....V242 626-630
FUERSTENAU M C.....V242 1487-1493
FUJII C T.....V242 1259-1265

GALASSO F.....V242 754-755
GALLAGHER P C J.....V242 103-105
GANDOLFO D A.....V242 603-607
GANGULEE AMITAVA.....V242 272-277
.....V242 278-283
GANNON J J.....V242 400-406
GARDNER H E.....V242 2453-2456
GARFINKLE M.....V242 809-814
GARLICK R G.....V242 809-814
GEFFKEN R.....V242 2323-2328
GELL M.....V242 1869-1879
GEMPERLE A.....V242 2287-2294
GENIN JEAN MARIE ROBERT.....V242 1419-1430
GEORGE F D.....V242 1237-1247
GIESSEN B C.....V242 597-602
GIFFORD JOHN C.....V242 1009-1011
GIFKINS R C.....V242 734-736
GILES P M.....V242 1915-1925
GILLICH WILLIAM J.....V242 335-337
GLUCK J V.....V242 2229-2236
.....V242 2369-2371
GOEBEL J A.....V242 722-724
GOLDMAN A J.....V242 295-300
GOMERSALL D W.....V242 1309-1315
GONDI P.....V242 1927-1932
GOODMAN S R.....V242 88-93
GOSSENBERGER H F.....V242 400-406
GOTO KAZUHIRO.....V242 82-87
.....V242 1757-1759
GOULD R W.....V242 788-795
GRACE R E.....V242 822-825
.....V242 885-890
.....V242 1249-1252
GRAHAM R A.....V242 2017-2019
GRANT N J.....V242 597-602
.....V242 1605-1611
GRANT R T.....V242 2399-2414
GREEN ROBERT E JR.....V242 1071-1076
.....V242 2185-2190
GREENFIELD M A.....V242 755-756
GREGG J L.....V242 1205-1210
GRJOTHEIM K.....V242 2389-2392
GRUBER G A.....V242 532-539
GRUM JENSEN A.....V242 314-319
GRUZLESKI J E.....V242 1785-1791
GSCHNEIDNER K A JR.....V242 936-939
GUADAGNO J R.....V242 1481-1483
.....V242 2013-2014
GUPTA K P.....V242 1661-1663
GURLAND J.....V242 1535-1542
GUY A G.....V242 788-795

HABASHI FATHI.....V242 780-787
HAGEL W C.....V242 1293-1298
HAGER JOHN P.....V242 183-189
HAHN W C JR.....V242 1233-1235
HALL E O.....V242 332-333
.....V242 333-335
HAMMOND M L.....V242 546-550
.....V242 1385-1391
HANAFEE J.....V242 2081-2089
HANEY ELWOOD G.....V242 1943-1953
HANNA G L.....V242 320-328
HANSEN NIELS.....V242 954-956
HARMAN T C.....V242 374-383
HARRIGAN WILLIAM C.....V242 2491-2494
HARSHA K S SREE.....V242 1405-1412
HARTLEY CRAIG S.....V242 1101-1104
HARTT W H.....V242 1127-1133
.....V242 2207-2210
.....V242 2211-2215
HAUBER J R.....V242 1933-1936
HAWBOLT E B.....V242 1182-1184
HAWKES G L.....V242 1083-1089
HAWKINS DONALD T.....V242 1231-1232
HEALY G W.....V242 1039-1042
HECKEL R W.....V242 1645-1649
.....V242 2313-2321
HENDRICKSON L E.....V242 2329-2337
HENNEKE EDMUND G II.....V242 1071-1076
HEPWORTH M T.....V242 682-685
.....V242 698-700
HERMAN H.....V242 1727-1731
HERRNSTEIN W H III.....V242 1049-1056
HILLIARD J E.....V242 1373-1380
HIRTH J P.....V242 1145-1148
HOBSON D O.....V242 1105-1110
HOGAN L M.....V242 2133-2138
HOLLAND J R.....V242 2017-2019
HOLT DAVID L.....V242 25-31
.....V242 740-742
HOPKINS E N.....V242 579-587
HOPKINS R H.....V242 1627-1633
HORDON M J.....V242 713-714
.....V242 2011-2013
HOSFORD W F JR.....V242 5-13
.....V242 654-660
HOTZLER R K.....V242 750-751
HOWARD E M.....V242 1503-1507
HU HSUN.....V242 88-93
.....V242 1013-1024
.....V242 1476-1478
HUGHES T A.....V242 1853-1863
HULTGREN RALPH.....V242 1231-1232
HUMMEL R E.....V242 154-157
.....V242 249-253
.....V242 1754-1757
HUNT J D.....V242 1043-1047
HURLE D T J.....V242 1043-1047

INGRAHAM T R.....V242 1299-1302
.....V242 2039-2043
INOUE N.....V242 2081-2089
ISHIDA F.....V242 1793-1800
ISHIHARA T.....V242 231-237

JACKSON K A.....V242 1275-1279
JACOBSON M I.....V242 1385-1391
.....V242 2441-2452
JAMES D W.....V242 2024-2025
JENA A K.....V242 1453-1454
.....V242 2367-2369
JOHNSON ROY H.....V242 2485-2489
JOHNSON V A.....V242 1233-1235
JOHNSON W.....V242 1685-1688
JOLLEY W.....V242 306-314
JONAS J J.....V242 1619-1626
JONAS JOHN J.....V242 2271-2280
JONES F G.....V242 2453-2456
JONES R R.....V242 1891-1895
JORDON R W.....V242 295-300
JORSTAD J L.....V242 1217-1222
JOSEY G A JR.....V242 161-162
JUDD R R.....V242 206-214

KAJAMAA JAAKKO.....V242 973-977
KAKAR ASHOK K.....V242 740
.....V242 1117-1120
KAMETANI HIROSHI.....V242 1025-1034
KANEKO K.....V242 1759-1761
KAPADIA B M.....V242 1689-1694
KARASHIMA S.....V242 1703-1708
KARIM A.....V242 890-895
KARNOWSKY M M.....V242 2257-2261
KASHIDA KOICHI.....V242 82-87
KATO HIROSHI.....V242 56-65
KAUFMAN D F.....V242 2423-2431
KAUFMAN L.....V242 1077-1082
KAWABE U.....V242 1793-1800
KEH A S.....V242 765-766
KELLEY E W.....V242 5-13
.....V242 654-660
KELLY P M.....V242 2099-2106
.....V242 2107-2109
KEMPTER C P.....V242 1483
.....V242 1751-1752
KERLINS V.....V242 1657-1660
KHAN ALI.....V242 1969-1972
KILLPATRICK D H.....V242 1657-1660
KING W.....V242 115-119
KIRKALDY J S.....V242 2055-2061
KIRSH P F.....V242 885-890
KITADA M.....V242 1793-1800
KLAR E.....V242 2173-2176
KLOPP WILLIAM D.....V242 1837-1843
KLUEH R L.....V242 237-244
KNAPP S B.....V242 995-1000
KNOTT H.....V242 2075-2080
KNUDSEN PER.....V242 1605-1611
KOCH E F.....V242 157-160
KOGER J W.....V242 154-157
.....V242 249-253
.....V242 1754-1757
KOLSTER B H.....V242 669-673
KOMAREK K.....V242 1685-1688
KOMAREK K L.....V242 1801-1807
KONDO Y.....V242 896-902
KOSSOWSKY R.....V242 716-719
KOTVAL P S.....V242 163-164
.....V242 1651-1656
.....V242 1764-1765
KOUMP V.....V242 283-291
.....V242 776-779
.....V242 1569-1574
KRAFT R W.....V242 1627-1633
.....V242 1891-1895
KRAUSE A R.....V242 2339-2342
KRAUSS G.....V242 2021-2022
KUHLMANN WILSDORF D.....V242 347-349
KUNSTELJ D.....V242 1461

LABELLE H E JR.....V242 436-441
LAFORCE R P.....V242 14-24
LAIRD C.....V242 591-596
.....V242 1253-1257
.....V242 1393-1403
.....V242 1437-1448
.....V242 2339-2342
LAMPRECHT G J.....V242 2169-2171
LANE F E.....V242 1468-1469
LANGDON T G.....V242 890-895
.....V242 2479-2484
LANGE F F.....V242 341-342
LAW D.....V242 115-119
LAWRENCE J E.....V242 484-489
LEE ROBERT G.....V242 961-965
LEFEVRE B G.....V242 788-795
LEFFERS T.....V242 314-319
LENA A K.....V242 371-373
LEVERANT G R.....V242 1869-1879
.....V242 2347-2353
LI CHE YU.....V242 1205-1210
LINARES ROBERT C.....V242 441-443
LINDBORG U.....V242 94-102
LIU C T.....V242 1535-1542
LONDON G J.....V242 979-986
.....V242 987-994
.....V242 2423-2431
LOUVET R L.....V242 2369-2371
LOVE G R.....V242 746-747
LOW J R JR.....V242 14-24
LU W K.....V242 2471-2477
LUNDIN CHARLES E.....V242 903-907
.....V242 1161-1165
LUNDY T S.....V242 956
.....V242 1897-1900
LUPIS CLAUDE H P.....V242 929-935
LUSZCZ S.....V242 1111-1115

MACHLIN E S.....V242 1845-1847

MACIAG R J.....V242 2295-2297
MAGEE C L.....V242 1741-1749
.....V242 1766-1767
MAH G.....V242 1211-1216
MANASEVIT H M.....V242 75-78
.....V242 465-469
MANCHESTER K E.....V242 1173-1180
MANGALICK M C.....V242 2363-2364
MANNING F S.....V242 618-625
MARCINKOWSKI M J.....V242 579-587
.....V242 1405-1412
.....V242 2393-2398
MARCUS H L.....V242 2251-2256
MARGOLIN H.....V242 755-756
MARGOLIN HAROLD.....V242 742-744
.....V242 1901-1913
MARIER P.....V242 2039-2043
MARTIN J W.....V242 814-819
MARTIN R J.....V242 2153-2154
MASON J T.....V242 1167-1171
MASSALSKI T B.....V242 1469-1470
MASSON D BRUCE.....V242 190-195
MAURER W R.....V242 1517-1521
MAYER G.....V242 1587-1594
MCHARGUE C J.....V242 180-182
MCKINSTRY H A.....V242 341-342
MCLEAN A.....V242 1309-1315
MCLEAN D.....V242 1193-1203
MCLELLAN REX B.....V242 1472-1473
.....V242 2129-2132
MCMAHON CHARLES J JR.....V242 162-163
MCMASTERS O D.....V242 936-939
MCNAUGHTON RONALD R.....V242 552-557
MEE P B.....V242 2155-2161
MEHAL E W.....V242 461-464
MEHAL EDWARD W.....V242 452-461
MEHL R F.....V242 1853-1863
MEHRABIAN R.....V242 41-49
MEIERAN EUGENE S.....V242 413-424
METZGER M.....V242 2329-2337
MEUSSNER R A.....V242 1259-1265
MICHAEL A B.....V242 2173-2176
MICHALAK J T.....V242 1149-1160
MIHALISIN J R.....V242 2399-2414
MILLER E.....V242 1685-1688
.....V242 1801-1807
.....V242 2323-2328
MILLER E A.....V242 479-484
MILLS D.....V242 1881-1890
MILNE I.....V242 120-126
MINER R V JR.....V242 1553-1554
MISHIMA Y.....V242 751-752
MITCHELL A.....V242 343
.....V242 1462-1464
.....V242 2507-2511
MITCHELL J B.....V242 1449-1452
MITCHELL T E.....V242 907-917
MONTELBANO T.....V242 1973-1979
MONTGOMERY GEORGE L.....V242 762-763
MORANDO R.....V242 1121-1125
MORRIS D R.....V242 1083-1089
MORRISON W B.....V242 1762
.....V242 2221-2227
MORRITZ F L.....V242 75-78
MORTLOCK A J.....V242 1963-1967
MOSER Z.....V242 558-565
MOSS GERALD L.....V242 335-337
MOTTERN D J.....V242 150-151
MOUDY L A.....V242 465-469
MRAZEK R V.....V242 995-1000
MUAM A.....V242 2389-2392
MUELLER M H.....V242 2075-2080
MUKHERJEE K.....V242 1495-1501
.....V242 2295-2297
MULLINS W W.....V242 237-244
MURPHY W J.....V242 1689-1694
MURTY G S.....V242 329-331
MYLES K M.....V242 1523-1526

NABER C T.....V242 470-479
NABI G.....V242 2471-2477
NAGASHIMA SHINICHI.....V242 56-65
NAKADA Y.....V242 765-766
NAKAJIMA S.....V242 709-712
NAKAYAMA T.....V242 1759-1761
NELSON R D.....V242 331-332
.....V242 1665-1867
NEREO G E.....V242 41-49
.....V242 50-55
NEUMANN J P.....V242 700-702
NEWEY C W A.....V242 1001-1007
.....V242 1753-1754
NIELSEN E J.....V242 2245-2249
NIX WILLIAM D.....V242 2491-2494
NOLDER R L.....V242 465-469
NUESE C J.....V242 400-406

OAKWOOD T G.....V242 1327-1333
OATES W A.....V242 332-333
.....V242 1472-1473
.....V242 2129-2132
OBLAK J M.....V242 1563-1568
OGLE J C.....V242 1317-1326
OIKAWA H.....V242 1703-1708
.....V242 2027-2029
OKA M.....V242 337-338
OKAZAKI H.....V242 709-712
OKEEFE T J.....V242 936-939
OLSSON R G.....V242 776-779
ONEAL J E.....V242 470-479
ONO KANJI.....V242 244-248
OWCZARSKI W A.....V242 1563-1568
OWEN C V.....V242 1775-1784

PAASCHE O G.....V242 2241-2242
PACKARD D R.....V242 1335-1341
PACKER CHARLES M.....V242 2485-2489
PADGETT R A.....V242 1897-1900
PAL A K.....V242 1661-1663
PANISH M B.....V242 406-412
PAPAZOGLOU T P.....V242 682-685
PARKINS R N.....V242 1943-1953
PARLEE N A D.....V242 869-875
.....V242 1458-1460
.....V242 2015-2017
PASCOVER J S.....V242 673-682
PASUPATHI V.....V242 249-253
PAULSON W M.....V242 846-852
PAXTON H W.....V242 206-214
.....V242 1741-1749
.....V242 1766-1767
PEHLKE R D.....V242 2369-2371
.....V242 2453-2456
.....V242 2501-2505
PEHLKE ROBERT D.....V242 565-575
.....V242 2457-2459
PEMSLER J P.....V242 151-152
PERKINS R A.....V242 343-345
PERZAK T F.....V242 776-779
.....V242 1569-1574
PETERSON D T.....V242 922-929
PHILBROOK W O.....V242 618-625
PHILLIPS A.....V242 1657-1660
PHILLIPS V A.....V242 2415-2422
PILLAI N R.....V242 2025-2027
PINAJIAN J J.....V242 2027-2029
PINTO J.....V242 754-755
PITSCH WOLFGANG.....V242 2019-2021
POBER R L.....V242 1077-1082
POIRIER DAVID R.....V242 349-350
.....V242 685-690
POOL M J.....V242 291-295
.....V242 1481-1483
.....V242 1553-1554
.....V242 2013-2014
POPS HORACE.....V242 1267-1274
.....V242 1849-1851
PORTISCH HANSHEINZ.....V242 1901-1913
POUND G M.....V242 731-734
POWELL G L F.....V242 2133-2138
POWELL G W.....V242 66-71
PRATT I H.....V242 526-531
PRATT J N.....V242 1709-1711
PRUSS T V.....V242 603-607
PTAK W.....V242 558-565
PUGH E N.....V242 1479-1481
PURDY G R.....V242 800-809

QUADER M A.....V242 347-349
.....V242 771-776
QUIST O P.....V242 967-971

RADCLIFFE S V.....V242 673-682
.....V242 2191-2198
RAFFO P L.....V242 907-917
RAGONE DAVID V.....V242 1809-1813
RAMSEY T H.....V242 497-501
RAPP ROBERT A.....V242 1719-1726

RAPPERPORT E J.....V242 151-152
RAUCH G C.....V242 2263-2270
RAWLINGS REES D.....V242 1001-1007
RAZI S.....V242 448-452
REDDEN T K.....V242 1695-1702
REED HILL R E.....V242 661-669
.....V242 1127-1133
.....V242 2207-2210
.....V242 2211-2215
REED R E.....V242 180-182
REED-HILL ROBERT E.....V242 2022-2024
REESE RICHARD B.....V242 1719-1726
REICHMAN S H.....V242 160-161
REID C N.....V242 1831-1836
RENNHACK E H.....V242 343-345
RETI A M.....V242 371-373
RICHARDS C E.....V242 1831-1836
RICHARDS N E.....V242 2495-2500
RICHMAN M H.....V242 1186-1187
RICKARD R S.....V242 1487-1493
RIECK G D.....V242 575-578
RIGDON M A.....V242 822-825
ROBBINS R E.....V242 2010-2011
ROBERGE R.....V242 1727-1731
ROBERTS J T A.....V242 2299-2303
ROBERTS L W JR.....V242 2199-2205
ROBERTS W T.....V242 1223-1230
ROBERTSON W M.....V242 2139-2142
ROBINSON V S III.....V242 719-721
ROHDE R W.....V242 2017-2019
ROSA C J.....V242 1293-1298
ROSALES LOUIS A.....V242 244-248
ROSEN S.....V242 722-724
ROSENBERG R.....V242 502-511
ROSENZWEIG A.....V242 2257-2261
ROSNER DANIEL E.....V242 2355-2357
ROSS H U.....V242 1981-1988
ROWLANDS P C.....V242 1555-1558
.....V242 1559-1562
RUDY E.....V242 953-954
RUSSELL E R.....V242 2495-2500

SAARIVIRTA MATTI J.....V242 947-952
SACHSE WOLFGANG.....V242 2185-2190
SAHM P R.....V242 603-607
SALKIND M.....V242 2281-2286
SALKIND M J.....V242 1237-1247
SANDER L F.....V242 1039-1042
SARGENT COLIN M.....V242 1188-1190
SARGENT COLIN M.....V242 2365
SASABE MINORU.....V242 1757-1759
SASTRI A S.....V242 2393-2398
SCANDOLA G.....V242 1927-1932
SCHADLER H W.....V242 825-832
.....V242 1281-1287
SCHOONE R D.....V242 1149-1160
SCHULTZ J M.....V242 1381-1384
SCHWERDTFEGER KLAUS.....V242 631-633
SCOTT T E.....V242 1775-1784
SCOTT T R.....V242 1815-1821
SEEGER A.....V242 749-750
SEIGLE L.....V242 1973-1979
SELTZER M S.....V242 1456-1457
SEYBOLT A U.....V242 752-754
.....V242 1955-1961
.....V242 2415-2422
SHAH I D.....V242 869-875
.....V242 2015-2017
SHAPIRO S.....V242 2021-2022
SHEN S S.....V242 2013-2014
SHEN YUAN SHOU.....V242 2241-2242
SHERBY OLEG D.....V242 2485-2489
SHERMAN D H.....V242 1775-1784
SHIBATA S.....V242 1759-1761
SHIELD RICHARD.....V242 497-501
SHIROMIZU R.....V242 751-752
SHODHAN R P.....V242 1185-1186
SHORE H T.....V242 1381-1384
SHUCK F O.....V242 768-770
SIMCOE CHARLES R.....V242 351-352
SINGH U P.....V242 1661-1663
SINGHAL L K.....V242 814-819
SIRCAR S C.....V242 1761
SKAGGS R L.....V242 922-929
SKOLNICK L.....V242 215-225
.....V242 225-231
SLIPPY W A JR.....V242 2211-2215
SMALL W M.....V242 2501-2505
SMALLMAN R E.....V242 120-126
SMITH G C.....V242 1989-1995

SMITH GEORGE V.....V242 1527-1533
SMITH J F.....V242 2045-2049
.....V242 2051-2054
SMITH J T.....V242 1181-1182
SMITH JOHN H.....V242 880-884
SMITH R W.....V242 31-34
.....V242 1478-1479
SNOW E H.....V242 512-523
SODI JUAN.....V242 2143-2145
SOLBU ARNT.....V242 301-306
SOMENO MAYUMI.....V242 82-87
.....V242 1757-1759
SONON DANIEL E.....V242 1527-1533
SOUTHIN ROY T.....V242 2240-2241
SPEICH G R.....V242 1359-1367
SPEISER R.....V242 1145-1148
SPENCER P J.....V242 291-295
.....V242 1481-1483
.....V242 1553-1554
.....V242 1709-1711
.....V242 2013-2014
SPITTLE J A.....V242 1478-1479
SPITZER R H.....V242 618-625
SPREADBOROUGH.....V242 115-119
SPRETNAK J W.....V242 66-71
SPROUL W D.....V242 1186-1187
SRINIVASAN G R.....V242 79-82
ST PIERRE G R.....V242 2-4
ST PIERRE GEORGE R.....V242 1719-1726
STANDISH N.....V242 1475-1476
.....V242 1733-1740
STANLEY E B.....V242 1763-1764
STEIGERWALD E A.....V242 320-328
STEIN D F.....V242 14-24
STEININGER JACQUES.....V242 444-448
STEPHENS JOSEPH R.....V242 634-640
.....V242 1837-1843
STEVENS R N.....V242 2238-2240
STEVENSON DAVID A.....V242 862-869
STEWART A K.....V242 698-700
STEWART M J.....V242 1353-1357
STICKELS C A.....V242 833-843
STORMONT R W.....V242 72-75
STORMONT RICHARD W.....V242 747-749
STOVER R D.....V242 768-770
STRAALSUND JERRY L.....V242 190-195
STRANGWAY P K.....V242 1981-1988
STRAUMANIS M E.....V242 1185-1186
STRAUSS ALAN J.....V242 354-365
STRUTT P R.....V242 2245-2249
STUBICAR M.....V242 1461
SUBRAMANIAN S V.....V242 800-809
SULLIVAN C P.....V242 2347-2353
SWISHER J H.....V242 763-765
.....V242 1035-1042
.....V242 2033-2037
.....V242 2433-2439
SZEDON J R.....V242 532-539
SZEKELY J.....V242 612-618
.....V242 918-921
.....V242 961-965

TAKECHI HIROSHI.....V242 56-65
TANAKA A.....V242 338-339
TANGERINI I.....V242 1927-1932
TANZILLI R A.....V242 2313-2321
TARBY S K.....V242 719-721
TETELMAN A S.....V242 1473-1475
TEVIOTDALE J R.....V242 588-591
THOMAS CHARLES L.....V242 1009-1011
THONSTAD JOMAR.....V242 301-306
THRESH H.....V242 853-858
THRESH H R.....V242 819-822
TIEN R H.....V242 283-291
.....V242 1289-1292
.....V242 1569-1574
TIEN T Y.....V242 2153-2154
TIETJEN J J.....V242 400-406
TINER N A.....V242 1635-1643
TONEJC A.....V242 1461
TORRES ACUNA NESTOR.....V242 780-787
TORSSELL K.....V242 94-102
TOTANI A.....V242 709-712
TRABOCCO R E.....V242 1645-1649
TRENTINI B.....V242 2377-2388
TRUEB LUCIEN F.....V242 1057-1065
TURK C D.....V242 2251-2256
TURKALO A M.....V242 14-24
TURKDOGAN E T.....V242 1665-1672
.....V242 1673-1678

TURKDOGAN E T.....V242 1997-2005
TURNER N G.....V242 1223-1230

UTINE M T.....V242 1458-1460
UVIRA J L.....V242 1619-1626

VAESSEN G H G.....V242 575-578
VALLA O.....V242 2389-2392
VAN VLACK L H.....V242 2153-2154
VANDERMEER R A.....V242 1317-1326
VANDERVOORT RICHARD R.....V242 345-347
.....V242 1466-1467
VARDIMAN R G.....V242 196-205
VEER F A.....V242 669-673
VERHOEVEN J D.....V242 1335-1341
.....V242 1937-1942
VIDOZ A E.....V242 2441-2452
VIOLET C E.....V242 1503-1507
VOGEL D L.....V242 575-578
VOOK R W.....V242 1111-1115
VREELAND T JR.....V242 132-138

WAGNER JOHN W.....V242 366-371
WAITS ROBERT K.....V242 490-497
WALD F.....V242 72-75
.....V242 150-151
WALD FRITZ.....V242 747-749
.....V242 760-761
WALKER B F.....V242 1233-1235
WALLS HUGH A.....V242 2177-2184
WALTER J L.....V242 157-160
.....V242 1823-1830
WARD R G.....V242 1309-1315
WARKE W R.....V242 2359-2362
WATANABE T.....V242 1703-1708
WATSON T W.....V242 844-846
.....V242 876-880
WAUGH K R.....V242 2024-2025
WAYMAN C M.....V242 79-82
.....V242 337-338
WEBSTER D.....V242 640-648
WEERTMAN J.....V242 956-958
.....V242 1413-1418
WEINBERG F.....V242 853-858
.....V242 2111-2120
WEINSTEIN MARTIN.....V242 760-761
WEISBERG L R.....V242 479-484
WELLS T C.....V242 2217-2220
WERT C.....V242 1211-1216
WHITE D W G.....V242 819-822
.....V242 1483-1484
WIEDEMEIER HERIBERT.....V242 1969-1972
WILBER G A.....V242 2305-2308
WILCOX W R.....V242 588-591
WILKOMIRSKY IGOR A.....V242 183-189
WILLARDSON ROBERT K.....V242 366-371
WILLIAMS J C.....V242 2461-2469
WILLIAMS R O.....V242 105-115
WILSHIRE B.....V242 1303-1307
WINDISCH ST.....V242 953-954
WINEGARD W C.....V242 1785-1791
WINTER J.....V242 295-300
WINTERBOTTOM W L.....V242 731-734
WITT FRED.....V242 1111-1115
WOJCIECHOWSKI STEFAN.....V242 690-698
WOLFF G A.....V242 436-441
WOLFF U.....V242 597-602
WONG WINSTON A.....V242 2271-2280
WOOD J D.....V242 1181-1182
.....V242 1233-1235
WOODFORD D A.....V242 744-746
WORRELL W L.....V242 1673-1678
WRIGHT M A.....V242 713-714
.....V242 2011-2013
WULFF J.....V242 2263-2270

YAMAZAKI S.....V242 896-902
YEN C M.....V242 833-843
YOKOI M.....V242 231-237
YOSHIDA K.....V242 231-237
YOUDELIS W V.....V242 757-759
YOUTZ P.....V242 374-383
YUE A S.....V242 2441-2452

ZEHR S W.....V242 329-331
ZUPP RICHARD R.....V242 862-869
ZWELL L.....V242 765-766
ZWELL LEO.....V242 631-633

Subject Index to Volume 242

Transactions of the Metallurgical Society of AIME

ABSOLUTE VISCOSITY
SEE VISCOSITY
ABSORPTIOMETRY /ENERGY/
SEE ABSORPTION /ENERGY/
ABSORPTIOMETRY /MATERIAL/
SEE ABSORPTION /MATERIAL/
ABSORPTION /ENERGY/
HIGH-TEMPERATURE ABSORPTION OF YVO4 AND YVO4..EU V242 714-716
ABSORPTION /MATERIAL/
SEE ALSO CHEMISORPTION
THE KINETICS OF OXYGEN EFFUSION FROM INDUCTION-STIRRED LIQUID SILVER V242 1458-1460
ABSORPTION COEFFICIENT
SEE ABSORPTION /ENERGY/
ACID LEACHING
THE CATALYZED OXIDATION OF ZINC SULFIDE UNDER ACID PRESSURE LEACHING CONDITIONS V242 1815-1821
ACOUSTIC DRILLING
SEE SOUND WAVES
ACTINIDE SERIES
SEE PLUTONIUM
THORIUM
URANIUM
ACTINIDE SERIES COMPOUNDS
SEE URANIUM CARBIDE
URANIUM COMPOUNDS
ACTIVATION ENERGY
SEE FREE ENERGY OF ACTIVATION
ACTIVATION ENTROPY
SEE ENTROPY
ENTROPY OF ACTIVATION
ACTIVITY /CHEMICAL/
THE ACTIVITY OF CARBON IN ALLOYED AUSTENITE AT 1000 C V242 35-41
GALVANIC CELL STUDIES USING A MOLTEN OXIDE ELECTROLYTE. PT. 1. THERMODYNAMIC PROPERTIES OF THE LEAD-SILVER SYSTEM V242 183-189
THE THERMODYNAMIC PROPERTIES OF LIQUID ZINC-TIN-CADMIUM-LEAD SOLUTION V242 558-565
ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C V242 631-633
ACTIVITY OF CARBON IN AUSTENITE V242 685-690
STATISTICAL THERMODYNAMICS OF CARBON IN TERNARY AUSTENITIC IRON-BASE ALLOYS V242 862-869
A NOTE ON THE DARKEN-ALCOCK-RICHARDSON EQUATION FOR DILUTE SOLUTIONS OF SOLUTES IN BINARY ALLOY SOLVENTS V242 1472-1473
THERMODYNAMIC PROPERTIES AND ORDERING IN COAL V242 1801-1807
THE ACTIVITY OF CR IN LIQUID NI-CR ALLOYS V242 2007-2008
THERMODYNAMIC INTERACTIONS BETWEEN ZINC AND BISMUTH IN DILUTE SOLUTION IN MOLTEN TIN V242 2369-2371
SULFUR SOLUBILITY AND INTERNAL SULFIDATION OF IRON-TITANIUM ALLOYS V242 2433-2439
THE EQUILIBRIUM BETWEEN ALUMINUM AND NITROGEN IN LIQUID 18 PCT CR-8 PCT NI STAINLESS STEEL V242 2453-2456
ACTIVITY COEFFICIENTS
SEE ACTIVITY /CHEMICAL/
AGE HARDENING
SEE PRECIPITATION HARDENING
AGE HARDNESS
SEE PRECIPITATION HARDENING
AGE SOFTENING
SEE OVERAGING
AGENTS
SEE REDUCING AGENTS
STABILIZERS /AGENTS/
AGING /METALLURGICAL/
SEE ALSO NATURAL AGING /METALLURGICAL/
OVERAGING
PRECIPITATION HARDENING
STRAIN AGING
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 1. METALLOGRAPHY V242 2099-2106
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452
AIR BUBBLES
SEE BUBBLES
AIR HEATERS
SEE BLAST FURNACE STOVES
AIR MELTING
SEE MELTING
ALKALI METAL COMPOUNDS
SEE LITHIUM COMPOUNDS
ALKALI METALS
SEE LITHIUM
SODIUM
ALKALINE EARTH METAL COMPOUNDS
SEE CALCIUM COMPOUNDS
ALKALINE EARTH METALS
SEE BERYLLIUM
CALCIUM
MAGNESIUM
ALLOY PLATING
NI-AL COATING-BASE METAL INTERACTIONS IN SEVERAL NICKEL-BASE ALLOYS V242 1695-1702
ALLOY STEELS
SEE ALSO BORON INTENSIFIED STEELS
CHROMIUM STEELS
HIGH STRENGTH STEELS
LOW ALLOY STEELS
MANGANESE STEELS
MARAGING STEELS
NICKEL STEELS
SILICON STEELS
STAINLESS STEELS
ALLOY STEELS, CASTING
MICROSEGREGATION IN STEEL CASTINGS V242 853-858
ALLOY STEELS, CRYSTAL LATTICES
STATISTICAL THERMODYNAMICS OF CARBON IN TERNARY AUSTENITIC IRON-BASE ALLOYS V242 862-869
ALLOYING
ELECTRON CELL MODEL OF ALLOYS V242 215-225
ALPHA ANNEALING
SEE ANNEALING
ALPHA BETA PHASE
SEE ALPHA PHASE
BETA PHASE
ALPHA GAMMA PHASE
SEE ALPHA PHASE
ALPHA IRON, MECHANICAL PROPERTIES
INFLUENCE OF A 3.28 PCT NICKEL ADDITION ON THE YIELD AND FRACTURE BEHAVIOR OF ALPHA IRON V242 306-314
THE EFFECT OF FERROMAGNETISM UPON CREEP DEFORMATION OF ALPHA IRON AND ITS SOLID-SOLUTION ALLOYS V242 1703-1708
ON THE MECHANISM OF CREEP IN ALPHA IRON V242 2008-2010
ALPHA IRON, SOLUBILITY
SOLUBILITY AND PERMEABILITY OF SULFUR IN ALPHA IRON V242 1049-1056
ALPHA PHASE
STUDY OF THE BETA TO ALPHA TRANSFORMATION IN LANTHANUM V242 579-587
BETA GRAIN SIZE DETERMINATION IN AN EQUIAXED ALPHA PLUS BETA TITANIUM ALLOY V242 755-756
ORDERING AND THE K STATE IN NICKEL-MOLYBDENUM ALLOYS V242 788-795
THE EFFECT OF A STABLE PHASE ON THE MARTENSITIC TRANSFORMATION V242 1754-1757
ALPHA PHASE, CRYSTAL GROWTH
RECRYSTALLIZATION IN ALPHA PLUTONIUM V242 331-332
ALPHA PHASE, DIFFUSION
INTERDIFFUSION COEFFICIENTS IN ALPHA CU-SI BY A MOVING INTERPHASE BOUNDARY METHOD V242 738-740
ALPHATIZING
SEE ANNEALING
ALUMINA

ALUMINA

SEE ALUMINUM OXIDE

ALUMINUM, ALLOYING ADDITIVE
HALL MEASUREMENTS OF ION-IMPLANTED LAYERS IN SILICON V242 1173-1180

ALUMINUM, ALLOYING ELEMENTS
STRUCTURAL CHANGES DURING SUPERPLASTIC DEFORMATION IN AL-78 WT PCT ZN ALLOY V242 716-719
--DISCUSSION ON-- THE ORDERING TRANSFORMATION IN TITANIUM.. ALUMINUM ALLOYS CONTAINING UP TO 25 AT. PCT ALUMINUM V242 726-730
SUPERPLASTICITY IN 60ZN-40AL V242 740-742
THE INFLUENCE OF STRUCTURE ON THE FLOW STRESS-STRAIN RATE BEHAVIOR OF AN-AL ALLOYS V242 825-832
HYDROGEN-INDUCED EXPANSIONS IN TITANIUM-ALUMINUM ALLOYS V242 1901-1913
THE EQUILIBRIUM BETWEEN ALUMINUM AND NITROGEN IN LIQUID 18 PCT CR-8 PCT NI STAINLESS STEEL V242 2453-2456

ALUMINUM, BINARY SYSTEMS
SPINODAL DECOMPOSITION V242 166-180
MASSIVE AND MARTENSITIC TRANSFORMATION IN AN AG-AL ALLOY V242 1182-1184
THERMODYNAMIC PROPERTIES OF SOLID CR-AL ALLOYS AT 1000 C V242 1685-1688

ALUMINUM, COMPOSITE MATERIALS
THE CHARPY IMPACT BEHAVIOR OF AL3NI WHISKER-REINFORCED ALUMINUM V242 1237-1247

ALUMINUM, CORROSION
GRAIN-BOUNDARY CORROSION IN ZONE-REFINED AND LOWER-PURITY ALUMINUM V242 2329-2337

ALUMINUM, CRYSTAL GROWTH
THE TRANSPORT OF SOLID IN A METALLIC MELT V242 1478-1479

ALUMINUM, CRYSTAL LATTICES
THE RELATIVE MAGNITUDES OF THE EXTRINSIC AND INTRINSIC STACKING FAULT ENERGIES V242 103-105
THE REPRESENTATION OF THE TEXTURES OF ROLLED COPPER, BRASS, AND ALUMINUM BY BIAXIAL POLE FIGURES V242 105-115
CRYSTALLOGRAPHY OF SHOCK COMPRESSION V242 335-337
TWIN BOUNDARIES IN ALUMINUM V242 1188-1190
GRAIN BOUNDARY SLIDING, MIGRATION, AND DEFORMATION IN HIGH-PURITY ALUMINUM V242 1823-1830
EXPERIMENTAL STUDY OF THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN ALUMINUM CRYSTALS V242 2185-2190

ALUMINUM, DIFFUSION
INTERFACE COMPOSITIONS, MOTION, AND LATTICE TRANSFORMATIONS IN MULTIPHASE DIFFUSION COUPLES V242 66-71
DISCUSSION OF DIFFUSION OF PALLADIUM, SILVER, CADMIUM, INDIUM, AND TIN IN ALUMINUM V242 956

ALUMINUM, ELECTROCHEMISTRY
DETERMINATION OF THE ABSOLUTE SHORT-TERM CURRENT EFFICIENCY OF AN ALUMINUM ELECTROLYTIC CELL V242 2495-2500

ALUMINUM, EXTRUSION
DEPENDENCE OF TEXTURE ON PROCESSING CONDITIONS IN EXTRUDED ALUMINUM WIRES V242 1461
ALUMINUM EXTRUSION AS THERMALLY ACTIVATED PROCESS V242 2271-2280

ALUMINUM, INTERMETALLICS
THE INFLUENCE OF TEMPERATURE ON THE LATTICE PARAMETERS OF THE INTERMETALLIC COMPOUND AG2AL V242 700-702
DISCUSSION OF PLASTIC DEFORMATION OF SINGLE CRYSTAL-NIAL V242 1753-1754
CREEP RELAXATION AND KINKING OF AL3NI WHISKERS AT ELEVATED TEMPERATURES V242 2281-2286

ALUMINUM, MECHANICAL PROPERTIES
INFLUENCE OF WORK-HARDENING EXPONENT ON THE FRACTURE TOUGHNESS OF HIGH-STRENGTH MATERIALS V242 320-328
EFFECT OF RESIDUAL GAS COMPOSITION ON THE FATIGUE BEHAVIOR OF ALUMINUM V242 713-714
A STEREOGRAPHIC REPRESENTATION OF KNOOP HARDNESS ANISOTROPY V242 809-814
RESISTANCE TO HOT DEFORMATION V242 1193-1203
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303

ALUMINUM, METAL WORKING
EFFECT OF FABRICATION METHOD ON THE TEXTURE OF ALUMINUM RODS V242 180-182

ALUMINUM, MICROSTRUCTURE
FACTORS INFLUENCING THE DISLOCATION STRUCTURES IN FATIGUED METALS V242 1253-1257

ALUMINUM, PHYSICAL PROPERTIES
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271

ALUMINUM, REACTIONS /CHEMICAL/
METAL REOXIDATION IN ALUMINUM ELECTROLYSIS V242 301-306
STRUCTURE OF REACTION- EQUALS FORMED ALUMINA-SILICON CERMETS V242 795-799

ALUMINUM, SOLUBILITY
THE SOLUBILITY OF ALUMINUM IN CRYOLITE MELTS V242 231-237
THE SOLID SOLUBILITIES OF SILVER, ALUMINUM, CHROMIUM, COPPER, AND IRON IN ZONE-REFINED BERYLLIUM V242 1385-1391

ALUMINUM, TERNARY SYSTEMS
PREDICTING TERNARY DIFFUSION INTERACTIONS FROM SOLUBILITY RELATIONSHIPS V242 1470-1472

ALUMINUM, THIN FILMS
ON THE STRUCTURE OF ALUMINUM FILMS V242 502-511

ALUMINUM BASE ALLOYS, CASTING
MACROSEGREGATION. PT. 2 V242 41-49
MACROSEGREGATION. PT. 3 V242 50-55

ALUMINUM BASE ALLOYS, CRYSTAL GROWTH
STRUCTURE AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 2. KINETICS OF GROWTH V242 1437-1448
THE TRANSPORT OF SOLID IN A METALLIC MELT V242 1478-1479

ALUMINUM BASE ALLOYS, MECHANICAL PROPERTIES
THE RELATION BETWEEN SUPERPLASTICITY AND GRAIN BOUNDARY SHEAR IN THE ALUMINUM-ZINC EUTECTOID ALLOY V242 25-31
THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390 V242 1217-1222
EFFECT OF STRAIN RATE AND TEMPERATURE AT HIGH STRAINS ON FATIGUE BEHAVIOR OF SAP ALLOYS V242 1605-1611
FATIGUE BEHAVIOR AND CRACK PROPAGATION IN 2024-T3 ALUMINUM ALLOY IN ULTRAHIGH VACUUM AND AIR V242 1713-1718
EFFECT OF CYCLIC FREQUENCY ON THE FATIGUE BEHAVIOR OF ALUMINUM IN VACUUM V242 2011-2013
THE RELATION OF DUCTILITY TO DENDRITE CELL SIZE IN A CAST AL-SI-MG ALLOY V242 2063-2067
THE EFFECT OF STRAIN RATE AND TEMPERATURE ON THE FLOW STRESS OF 7075 ALUMINUM V242 2295-2297

ALUMINUM BASE ALLOYS, MICROSTRUCTURE
THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 690-698
--DISCUSSION ON-- MACROSEGREGATION.. PT. 1 V242 757-759
ON THE NATURE OF THE CHILL ZONE IN INGOT SOLIDIFICATION V242 1121-1125
STRUCTURES AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 1. INTERFACIAL STRUCTURES V242 1393-1403
ELEMENTS OF V GROUP AS MODIFIERS OF ALUMINUM-SILICON ALLOYS V242 2025-2027
DISCUSSION OF THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 2240-2241

ALUMINUM BASE ALLOYS, PHASE TRANSFORMATIONS
UNIDIMENSIONAL SOLIDIFICATION OF A SLAB-VARIABLE SURFACE TEMPERATURE V242 283-291
THE INFLUENCE OF PLASTIC DEFORMATION ON THE THETA PRIME TO THETA TRANSFORMATION IN AL-4 PCT CU V242 591-596
PRECIPITATION IN CYCLICALLY STRAINED AL-4 WT PCT CU--THE FORMATION OF GUINIER-PRESTON ZONES V242 1727-1731

ALUMINUM BASE ALLOYS, PHYSICAL PROPERTIES
ACTIVITY OF ALUMINUM IN AL-FE ALLOYS AT 1315 C V242 253-255

ALUMINUM BASE ALLOYS, SOLUBILITY
EXPERIMENTAL STUDY OF SOLIDIFICATION OF ALUMINUM-COPPER ALLOYS V242 1569-1574

ALUMINUM BASE ALLOYS, STRUCTURAL HARDENING
DISPERSION-STRENGTHENED ALUMINUM PRODUCTS WITH IMPROVED HIGH-TEMPERATURE DUCTILITY V242 954-956
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452

ALUMINUM BASE ALLOYS, THERMAL PROPERTIES

THERMODYNAMIC PROPERTIES AND ORDERING IN COAL V242 1801-1807

ALUMINUM CASTINGS
SEE CASTINGS

ALUMINUM COATINGS
SEE ALUMINUM

ALUMINUM COMPOUNDS
SEE ALSO ALUMINUM OXIDE

ALUMINUM COMPOUNDS, SYNTHESIS
SYNTHESIS AND SOLUTION GROWTH OF ALUMINUM PHOSPHIDE. PT. 1 V242 424-428
SYNTHESIS AND SOLUTION GROWTH OF ALUMINUM PHOSPHIDE. PT. 2 V242 428-432

ALUMINUM COMPOUNDS, THERMAL PROPERTIES
THERMODYNAMICS OF THE THERMAL DECOMPOSITION OF 1050 K ALUMINUM SULFATE.. THE AL-S-O SYSTEM FROM 850 TO V242 1299-1302

ALUMINUM OXIDE, DIFFUSION
RATE OF DISSOLUTION OF ALUMINA IN MOLTEN IRON OXIDE V242 776-779

ALUMINUM OXIDE, REACTIONS /CHEMICAL/
MEASUREMENT OF OXYGEN PRESSURE CHANGE IN OXIDE POWDERS BY OXYGEN CONCENTRATION CELLS V242 82-87

AMPERAGE
SEE ELECTRIC CURRENT

ANALYTICAL CHEMISTRY
SEE CHEMICAL ANALYSIS

ANALYZING
SEE CHEMICAL ANALYSIS

ANDRADE METHOD
SEE CRYSTAL GROWTH
SINGLE CRYSTALS

ANELASTICITY
INTERACTIONS OF CARBON IN SOLID SOLUTION IN COBALT V242 1211-1216

ANNEALING
SEE ALSO HOMOGENIZING /METALLURGICAL/
SUPERPLASTICITY IN 60ZN-40AL V242 740-742
MECHANISM OF REORIENTATION DURING RECRYSTALLIZATION OF POLYCRYSTALLINE TITANIUM V242 1013-1024
TWIN BOUNDARIES IN ALUMINUM V242 1188-1190
THE ANNEALING OF HYDROGEN-INDUCED MICROCRACKS IN IRON-3 PCT SILICON V242 1473-1475
CELLULAR RECRYSTALLIZATION IN A NICKEL-BASE SUPERALLOY V242 1563-1568
AN X-RAY LINE-BROADENING STUDY OF RECOVERY IN MONEL 400 V242 1645-1649
INTERNAL VOID FORMATION IN POWDER METALLURGY TUNGSTEN V242 2191-2198

ANODIC DISSOLUTION
THE ANODIC DISSOLUTION OF COPPER --1-- SULFIDE AND THE DIRECT RECOVERY OF COPPER AND ELEMENTAL SULFUR FROM WHITE METAL V242 780-787

ANODIC POLARIZATION
SEE POLARIZATION /ELECTRODES/

ANTIFERROMAGNETISM
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 1. METALLOGRAPHY V242 2099-2106

ANTIMONY, ALLOYING ELEMENTS
THE DENSITIES OF SOME LIQUID LEAD-ANTIMONY AND LEAD-ANTIMONY-TIN ALLOYS V242 859-862

ANTIMONY, BINARY SYSTEMS
METASTABLE SIMPLE CUBIC PHASES BASED ON ANTIMONY AND BISMUTH V242 597-602

ANTIMONY, INTERMETALLICS
THE HEAT OF FORMATION OF THE COMPOUND AUSB2 AND THE PARTIAL ENTHALPIES AND ENTHALPY INTERACTION COEFFICIENTS OF ANTIMONY AND GOLD IN LIQUID TIN V242 1453-1454

ANTIMONY, TERNARY SYSTEMS
THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236

ANTIMONY BASE ALLOYS, TRANSPORT PROPERTIES
EVIDENCE FOR A CORRELATION BETWEEN ELECTROMIGRATION AND ELECTRICAL RESISTIVITY V242 1771-1774

ANTIMONY COMPOUNDS, CRYSTAL GROWTH
EPITAXIAL GROWTH OF GASB FROM THE LIQUID PHASE V242 432-436

ANTIMONY COMPOUNDS, DIFFUSION
STRESS-ENHANCED GROWTH OF AG3SB IN SILVER-ANTIMONY COUPLES V242 2343-2346

APPARENT DENSITY
SEE BULK DENSITY

ARRHENIUS ACTIVATION ENERGY
SEE FREE ENERGY OF ACTIVATION

ARSENIC, TERNARY SYSTEMS
REPRODUCIBLE DIFFUSION OF ZINC INTO GAAS.. APPLICATION OF THE TERNARY PHASE DIAGRAM AND THE DIFFUSION AND SOLUBILITY ANALYSES V242 406-412

ARSENIC COMPOUNDS, CRYSTAL GROWTH
EVALUATION OF BULK AND EPITAXIAL GAAS BY MEANS OF X-RAY TOPOGRAPHY V242 413-424
PLANAR GUNN OSCILLATOR FOR MICROWAVE INTEGRATED CIRCUITS V242 461-464

ARSENIC COMPOUNDS, SEMICONDUCTORS
ELECTROLUMINESCENCE OF VAPOR-GROWN GAAS AND GAAS1-XPX DIODES V242 400-406
COMPOUND SEMICONDUCTORS FOR INTEGRATED CIRCUITRY V242 452-461

ARSENIC COMPOUNDS, SINGLE CRYSTALS
SOLUTION GROWTH OF --ZN,HG--TE AND GA--P,AS-- CRYSTALS V242 436-441

ATOMIC DIFFUSION
SEE DIFFUSION

ATOMIC MASS
SEE ATOMIC PROPERTIES

ATOMIC NUMBER
SEE ATOMIC PROPERTIES

ATOMIC PROPERTIES
SEE ALSO ATOMIC STRUCTURE
ATOMIC MOBILITIES IN MULTICOMPONENT DIFFUSION AND THEIR DETERMINATION V242 1369-1372

ATOMIC SIZE
SEE ATOMIC PROPERTIES

ATOMIC STRUCTURE
ELECTRON CELL MODEL OF ALLOYS V242 215-225
THE CRYSTAL STRUCTURE OF NICKEL-RICH NIAL AND MARTENSITIC NIAL V242 722-724
TERNARY COMPOUNDS WITH THE FE2P-TYPE STRUCTURE V242 2075-2080

ATOMIC WEIGHT
SEE ATOMIC PROPERTIES

ATTENUATION
SEE ALSO ULTRASONIC ATTENUATION
ULTRASONIC ATTENUATION STUDIES OF MIXED MICROSTRUCTURES IN STEEL V242 1543-1551

ATTENUATION COEFFICIENTS
SEE ATTENUATION

AUSFORMING
--DISCUSSION ON-- THE INFLUENCE OF THERMOMECHANICAL TREATMENTS ON THE MICROSTRUCTURE AND TENSILE PROPERTIES OF HASTELLOY X-280 V242 163-164

AUSTENITE
SEE ALSO RETAINED AUSTENITE
KINETICS OF AUSTENITE FORMATION FROM A SPHEROIDIZED FERRITE-CARBIDE AGGREGATE V242 206-214
ACTIVITY OF CARBON IN AUSTENITE V242 685-690
A STUDY OF THE THERMODYNAMICS OF CARBON IN AUSTENITE BY AN ELECTROCHEMICAL METHOD V242 1083-1089
THERMODYNAMIC PROPERTIES OF INTERSTITIAL SOLUTIONS OF IRON-BASE ALLOYS V242 1135-1143
DISCUSSION OF ON THE MECHANISM OF THE MARTENSITE-TO-AUSTENITE REVERSE TRANSFORMATION IN AN FE-NI ALLOY V242 2021-2022
LATTICE PARAMETERS AS A FUNCTION OF TITANIUM IN AUSTENITIC FE-NI-TI ALLOYS V242 2365-2367

AUSTENITE, CRYSTAL GROWTH
THE DETERMINATION OF RAPID RECRYSTALLIZATION RATES OF AUSTENITE AT THE TEMPERATURES OF HOT DEFORMATION V242 2305-2308

AUSTENITE, REACTIONS /CHEMICAL/
ON THE CARBON-CARBON INTERACTION ENERGY IN IRON V242 1845-1847

AUSTENITE, SOLUBILITY
--DISCUSSION ON-- A MODEL FOR CONCENTRATED INTERSTITIAL SOLID SOLUTIONS.. ITS APPLICATION TO SOLUTIONS OF CARBON IN GAMMA IRON V242 731-734

AUSTENITE, THERMAL PROPERTIES
THE ACTIVITY OF CARBON IN ALLOYED AUSTENITE AT 1000 C V242 35-41

AUSTENITIC STAINLESS STEELS, IRRADIATION
STABILIZED CAVITIES IN IRRADIATED AUSTENITIC STAINLESS STEEL V242 2010-2011

AUSTENITIC STAINLESS STEELS, MECHANICAL PROPERTIES
HYDROGEN EMBRITTLEMENT OF STAINLESS STEEL V242 2199-2205

AUSTENITIC STAINLESS STEELS, MICROSTRUCTURE
COMPOSITIONAL EFFECTS ON THE DEFORMATION MODES, ANNEALING TWIN FREQUENCIES, AND STACKING FAULT ENERGIES OF AUSTENITIC STAINLESS STEELS

AUSTENITIC STAINLESS STEELS

V242 771-776

AUSTENITIC STAINLESS STEELS, SOLUBILITY
THE EQUILIBRIUM BETWEEN ALUMINUM AND NITROGEN IN LIQUID 18 PCT CR-8 PCT NI STAINLESS STEEL
V242 2453-2456

AUSTENITIC STAINLESS STEELS, STRUCTURAL HARDENING
THE GROWTH OF M23C6 CARBIDE ON GRAIN BOUNDARIES IN AN AUSTENITIC STAINLESS STEEL
V242 814-819

AUSTENITIC STAINLESS STEELS, THERMAL PROPERTIES
THERMAL CONDUCTIVITY OF FOUR HEAT-RESISTANT ALLOYS
V242 844-846

AUTO OXIDATION
SEE OXIDATION

AUTODIFFUSION
SEE DIFFUSION

AUTOMOTIVE ENGINES
THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390
V242 1217-1222

AXIAL STRESS
CRYSTALLOGRAPHY OF SHOCK COMPRESSION
V242 335-337

BAINITE
ISOTHERMAL TRANSFORMATIONS IN AN FE-7.9CR-1.1C ALLOY
V242 79-82

BALLS
SEE SPHERES

BASAL PLANE
DISCUSSION OF IMPURITY EFFECTS ON BASAL SLIP IN ZINC SINGLE CRYSTALS
V242 2022-2024

BASIC CONVERTERS
SEE LD CONVERTERS

BATCH TYPE FURNACES
SEE LD CONVERTERS

BEND TESTS
FATIGUE BEHAVIOR AND CRACK PROPAGATION IN 2024-T3 ALUMINUM ALLOY IN ULTRAHIGH VACUUM AND AIR
V242 1713-1718

BENDING TESTS
SEE BEND TESTS

BERYLLIUM, ALLOYING ADDITIVE
THERMAL CONDUCTIVITY AND ELECTRICAL RESISTIVITY OF BERYLLIUM COPPER FOIL
V242 876-880

BERYLLIUM, DIFFUSION
THE SOLID SOLUBILITIES OF SILVER, ALUMINUM, CHROMIUM, COPPER, AND IRON IN ZONE-REFINED BERYLLIUM
V242 1385-1391

BERYLLIUM, MECHANICAL PROPERTIES
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES
V242 979-986

MICROSTRAIN COMPRESSION OF BERYLLIUM AND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 2. SLIP TRACE ANALYSIS AND TRANSMISSION ELECTRON MICROSCOPY
V242 987-994

CREEP STUDY ON HIGH-PURITY POLYCRYSTALLINE BERYLLIUM
V242 1933-1936

EFFECTS OF HYDROSTATIC PRESSURE ON THE MECHANICAL BEHAVIOR OF POLYCRYSTALLINE BERYLLIUM
V242 2081-2089

DEFORMATION AND FRACTURE OF BERYLLIUM BICRYSTALS
V242 2423-2431

BERYLLIUM BASE ALLOYS, MECHANICAL PROPERTIES
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES
V242 979-986

MICROSTRAIN COMPRESSION OF BERYLLIUM AND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 2. SLIP TRACE ANALYSIS AND TRANSMISSION ELECTRON MICROSCOPY
V242 987-994

BETA IRRADIATION
SEE IRRADIATION

BETA PHASE
THE EFFECT OF DEFORMATION ON THE MARTENSITIC TRANSFORMATION OF BETA1 BRASS
V242 249-253

BETA GRAIN SIZE DETERMINATION IN AN EQUIAXED ALPHA PLUS BETA TITANIUM ALLOY
V242 755-756

THE EFFECT OF A STABLE PHASE ON THE MARTENSITIC TRANSFORMATION
V242 1754-1757

BIAXIAL STRESS
SEE AXIAL STRESS

BICRYSTALS, CORROSION
GRAIN BOUNDARY PENETRATION AND EMBRITTLEMENT OF NICKEL BICRYSTALS BY BISMUTH
V242 1343-1351

BICRYSTALS, DIFFUSION
GRAIN BOUNDARY PENETRATION OF NIOBIUM --COLUMBIUM-- BY LITHIUM
V242 1205-1210

BILLETS, CHEMICAL ANALYSIS
THE DETERMINATION OF WATER VAPOR IN TOUGH PITCH COPPER WIRE BAR BY AN ALUMINUM REDUCTION TECHNIQUE
V242 1009-1011

BIMETALS, DIFFUSION
INTERFACE COMPOSITIONS, MOTION, AND LATTICE TRANSFORMATIONS IN MULTIPHASE DIFFUSION COUPLES
V242 66-71

BINARY SYSTEMS, CHEMICAL ANALYSIS
GALVANIC CELL STUDIES USING A MOLTEN OXIDE ELECTROLYTE. PT. 1. THERMODYNAMIC PROPERTIES OF THE LEAD-SILVER SYSTEM
V242 183-189

BINARY SYSTEMS, CRYSTAL GROWTH
NUCLEATION AND GROWTH OF THE PB-SN EUTECTIC
V242 1627-1633

BINARY SYSTEMS, DIFFUSION
DIFFUSION IN LIQUID BISMUTH-TIN ALLOYS
V242 768-770

BINARY SYSTEMS, ELECTROCHEMISTRY
A STUDY OF THE THERMODYNAMICS OF CARBON IN AUSTENITE BY AN ELECTROCHEMICAL METHOD
V242 1083-1089

BINARY SYSTEMS, MICROSTRUCTURE
THE DENDRITE-EUTECTIC TRANSITION IN SN-PB ALLOYS
V242 1275-1279

BINARY SYSTEMS, PHASE TRANSFORMATIONS
SPINODAL DECOMPOSITION
V242 166-180

ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C
V242 631-633

PHASE RELATIONS IN THE SYSTEM SNTE-SNSE
V242 709-712

MASSIVE AND MARTENSITIC TRANSFORMATION IN AN AG-AL ALLOY
V242 1182-1184

STRAIN-INDUCED TRANSFORMATION IN AG-ZN ALLOYS
V242 1353-1357

BINARY SYSTEMS, PHASES /STATE OF MATTER/
ON THE CONSTITUTION OF THE PSEUDOBINARY SECTION LEAD TELLURIDE-IRON
V242 72-75

THE PSEUDOBINARY SECTION OF PBTE AND GOLD
V242 150-151

THE INFLUENCE OF THE DENSITY OF STATES ON THE THERMODYNAMIC ACTIVITY OF ZINC IN THE EPSILON PHASE OF THE AG-ZN SYSTEM
V242 190-195

METALLURGICAL AND ELECTRONIC PROPERTIES OF PB1-XSNXTE, PB1-XSNXSE, AND OTHER IV-VI ALLOYS
V242 354-365

FORMATION OF PHOSPHOSILICATE GLASS FILMS ON SILICON DIOXIDE
V242 539-545

METASTABLE SIMPLE CUBIC PHASES BASED ON ANTIMONY AND BISMUTH
V242 597-602

THE YTTRIUM-CARBON SYSTEM
V242 846-852

THE ERBIUM-HYDROGEN SYSTEM
V242 903-907

DYSPROSIUM-LEAD SYSTEM
V242 936-939

REVISION OF THE TITANIUM-TUNGSTEN SYSTEM
V242 953-954

THERMODYNAMICS OF THE ERBIUM-DEUTERIUM SYSTEM
V242 1161-1165

THE YTTERBIUM-ZINC PHASE DIAGRAM
V242 1167-1171

PHASE RELATIONSHIPS IN THE SYSTEM CHROMIUM-SILICON
V242 1509-1515

STUDY OF THE MANGANESE-RICH END OF MN-SN SYSTEM
V242 1661-1663

THERMODYNAMIC PROPERTIES OF SOLID CR-AL ALLOYS AT 1000 C
V242 1685-1688

PHASE STUDIES IN THE SYSTEM MANGANESE SULFIDE-CADMIUM SULFIDE
V242 1969-1972

THE EFFECTS OF GOLD, PALLADIUM, AND PLATINUM ON THE LIQUID-GAS-SOLID EQUILIBRIUM IN THE AG-O SYSTEM
V242 2015-2017

THE MNTE-MNS SYSTEM
V242 2153-2154

PHASE DIAGRAMS AND THERMODYNAMIC PROPERTIES OF THE MG-SI AND MG-GE SYSTEMS
V242 2323-2328

BINARY SYSTEMS, PHYSICAL PROPERTIES
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER
V242 272-277

THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 2. LONG-RANGE ORDER
V242 278-283

A THERMODYNAMIC STUDY OF LIQUID MANGANESE-TIN ALLOYS
V242 1709-1711

BINARY SYSTEMS, SOLUBILITY
ON THE SOLID SOLUTIONS OF TIN TELLURIDE AND LEAD TELLURIDE
V242 371-373

A NOTE ON THE DARKEN-ALCOCK-RICHARDSON EQUATION FOR

DILUTE SOLUTIONS OF SOLUTES IN BINARY ALLOY SOLVENTS V242 1472-1473
DETERMINATION OF THE MISCIBILITY GAP IN THE AU-NI SYSTEM BY MEANS OF THE MOSSBAUER EFFECT V242 1503-1507
THERMODYNAMIC PROPERTIES OF SOLID RHODIUM-PALLADIUM ALLOYS V242 1523-1526
A CALORIMETRIC STUDY OF THE RHODIUM-TIN SYSTEM V242 1553-1554
THE MAGNESIUM-TITANIUM PHASE DIAGRAM TO 1.0 PCT TITANIUM V242 2069-2073

BINARY SYSTEMS, THERMAL PROPERTIES
HEATS OF SOLUTIONS OF TELLURIUM IN LIQUID TIN V242 1481-1483
THERMODYNAMICS OF BINARY METALLIC SOLUTIONS. PT. 2 V242 1997-2005
HEATS OF SOLUTION AND HEATS OF COMPOUND FORMATION IN THE LANTHANUM-TIN SYSTEMS V242 2013-2014

BINARY SYSTEMS, THERMOCHEMISTRY
THE CHEMICAL ACTIVITIES OF IRON AND CHROMIUM IN BINARY FE-CR ALLOYS V242 1719-1726

BINDING ENERGY /NUCLEAR/
ELECTRON CELL MODEL OF ALLOYS V242 215-225
INTERACTIONS OF CARBON IN SOLID SOLUTION IN COBALT V242 1211-1216

BIREFRINGENCE
GROWTH OF CUBIC ZINC SULFIDE FROM MOLTEN LEAD CHLORIDE V242 441-443

BISMUTH, BINARY SYSTEMS
METASTABLE SIMPLE CUBIC PHASES BASED ON ANTIMONY AND BISMUTH V242 597-602
DIFFUSION IN LIQUID BISMUTH-TIN ALLOYS V242 768-770

BISMUTH, CRYSTAL GROWTH
DYNAMIC NUCLEATION OF SUPERCOOLED METALS V242 256-263
EFFECT OF LOW-ENERGY ULTRASONIC VIBRATIONS ON DYNAMIC NUCLEATION V242 736-738
VACUUM DECANTING OF BISMUTH ALLOYS V242 1517-1521

BISMUTH, DIFFUSION
GRAIN BOUNDARY PENETRATION AND EMBRITTLEMENT OF NICKEL BICRYSTALS BY BISMUTH V242 1343-1351

BISMUTH, REACTIONS /CHEMICAL/
THERMODYNAMIC INTERACTIONS BETWEEN ZINC AND BISMUTH IN DILUTE SOLUTION IN MOLTEN TIN V242 2369-2371

BISMUTH BASE ALLOYS, CRYSTAL GROWTH
DYNAMIC NUCLEATION OF SUPERCOOLED METALS V242 256-263
VACUUM DECANTING OF BISMUTH ALLOYS V242 1517-1521

BISMUTH COMPOUNDS, PHASES /STATE OF MATTER/
IDENTIFICATION OF TELLURIUM OR SELENIUM PHASE IN V2VI3 PLUS X ALLOYS BY METALLOGRAPHY V242 145-149

BLAKODIZING
SEE OXIDATION

BLAST FURNACE COMPONENTS
SEE BLAST FURNACE STOVES

BLAST FURNACE STOVES
HEAT TRANSFER IN LIQUID METAL IRRIGATED PACKED BEDS COUNTERCURRENT TO GASES V242 1733-1740

BLISTERING
SOME OBSERVATIONS ON HYDROGEN EMBRITTLEMENT OF SILVER V242 237-244

BODY CENTERED CUBIC LATTICE
SOLUBILITY AND INTERSTITIAL MIGRATION OF OXYGEN IN BCC IRON V242 749-750
DISLOCATION REACTIONS IN ANISOTROPIC BCC METALS V242 1101-1104

BODY CENTERED TETRAGONAL LATTICE
SEE TETRAGONAL LATTICE

BOHR MODEL
SEE ATOMIC STRUCTURE

BOMB REDUCTION
SEE REDUCTION /CHEMICAL/

BOMBARDMENT /IRRADIATION/
SEE IRRADIATION

BONDING STRENGTH
BOND DEGRADATION MECHANISMS IN THE 75 PCT CU-25 PCT NI/CU/75 PCT CU-25 PCT NI COINAGE COMPOSITE V242 295-300

BORES
SEE HOLES

BORIDES, COMPOSITE MATERIALS
SYNTHESIS OF OXIDATION RESISTANT METAL DIBORIDE COMPOSITES V242 1077-1082

BORON, ALLOYING ADDITIVE
HALL MEASUREMENTS OF ION-IMPLANTED LAYERS IN SILICON V242 1173-1180

BORON, DIFFUSION
THE METAL BORIDES IN BORON FIBER CORES., IDENTIFICATION OF MOB4 V242 754-755

BORON COMPOUNDS, BINARY SYSTEMS
FORMATION OF PHOSPHOSILICATE GLASS FILMS ON SILICON DIOXIDE V242 539-545

BORON INTENSIFIED STEELS, STRUCTURAL HARDENING
THE INFLUENCE OF NITROGEN, TITANIUM, AND ZIRCONIUM ON THE BORON HARDENABILITY EFFECT IN CONSTRUCTIONAL ALLOY STEELS V242 1689-1694

BOUNDARIES
SEE GRAIN BOUNDARIES
PHASE BOUNDARY

BRASS PLATING
SEE ALLOY PLATING

BRASSES, CRYSTAL LATTICES
TEXTURE DEVELOPMENT IN COPPER AND 70-30 BRASS V242 88-93
THE REPRESENTATION OF THE TEXTURES OF ROLLED COPPER, BRASS, AND ALUMINUM BY BIAXIAL POLE FIGURES V242 105-115

BRASSES, MICROSTRUCTURE
DEVELOPMENT OF ROLLING TEXTURE IN COPPER AND BRASS V242 314-319

BRASSES, PHASE TRANSFORMATIONS
ON THE MARTENSITIC TRANSFORMATION OF BETA1 CU-ZN AFTER REPEATED THERMAL CYCLING V242 154-157
THE EFFECT OF A STABLE PHASE ON THE MARTENSITIC TRANSFORMATION V242 1754-1757

BRASSES, PHASES /STATE OF MATTER/
THE EFFECT OF DEFORMATION ON THE MARTENSITIC TRANSFORMATION OF BETA1 BRASS V242 249-253

BRIDGMAN METHOD
SEE CRYSTAL GROWTH
SINGLE CRYSTALS

BRITTLE
SEE BRITTLENESS

BRITTLENESS
SEE ALSO TEMPER BRITTLENESS
THE NUCLEATION OF BRITTLE FRACTURE IN SINTERED TUNGSTEN AT LOW TEMPERATURES V242 703-708
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES V242 979-986

BRONZE PLATING
SEE ALLOY PLATING

BUBBLES
SOME OBSERVATIONS ON HYDROGEN EMBRITTLEMENT OF SILVER V242 237-244

BULK DENSITY
DEFORMATION THEORY OF HOT PRESSING-YIELD CRITERION V242 1117-1120

BULK MODULUS
DISCUSSION OF THERMAL PROPERTIES OF TANTALUM MONOCARBIDE AND TUNGSTEN MONOCARBIDE V242 1751-1752

CADMIUM, ALLOYING ELEMENTS
THE CELLULAR STRUCTURE IN THE SN-CD EUTECTIC V242 1785-1791

CADMIUM, BINARY SYSTEMS
THERMODYNAMICS OF BINARY METALLIC SOLUTIONS. PT. 2 V242 1997-2005

CADMIUM, DIFFUSION
DISCUSSION OF DIFFUSION OF PALLADIUM, SILVER, CADMIUM, INDIUM, AND TIN IN ALUMINUM V242 956

CADMIUM, PHYSICAL PROPERTIES
DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS V242 1483-1484
THE DENSITIES OF LIQUID CADMIUM AND INDIUM V242 2237-2238

CADMIUM, QUATERNARY SYSTEMS
THE THERMODYNAMIC PROPERTIES OF LIQUID ZINC-TIN-CADMIUM-LEAD SOLUTION V242 558-565

CADMIUM, THERMAL PROPERTIES
THERMODYNAMIC MEASUREMENTS USING ATOMIC ABSORPTION V242 151-152

CADMIUM, TRANSPORT PROPERTIES
ELECTROTRANSPORT AND RESISTIVITY IN DILUTE SOLUTIONS OF CADMIUM, MERCURY, AND TIN IN MOLTEN SODIUM V242 1335-1341

CADMIUM COMPOUNDS

CADMIUM COMPOUNDS, BINARY SYSTEMS
PHASE STUDIES IN THE SYSTEM MANGANESE SULFIDE-CADMIUM SULFIDE V242 1969-1972
CADMIUM COMPOUNDS, ELECTRICAL PROPERTIES
INJECTION LUMINESCENCE IN RARE-EARTH-DOPED CDS HETEROJUNCTIONS V242 448-452
CAKES /METAL/
SEE INGOTS
CALANDRIA
SEE HEAT EXCHANGERS
CALCINATION
SEE ROASTING
CALCINING
SEE ROASTING
CALCIUM, INTERMETALLICS
ENTHALPY OF FORMATION OF CAMG2 V242 2045-2049
LOW-TEMPERATURE HEAT CAPACITY AND HIGH TEMPERATURE ENTHALPY OF CAMG2 V242 2051-2054
CALCIUM COMPOUNDS, PHASES /STATE OF MATTER/
THE CAF2-CAC2 SYSTEM, AND ITS RELATION TO ELECTROSLAG REMELTING PRACTICE V242 2507-2511
CALCIUM COMPOUNDS, REACTIONS /CHEMICAL/
ON THE TRANSFORMATION OF CAO TO CAS AT 1400 TO 1650 C V242 1039-1042
CALCIUM COMPOUNDS, TERNARY SYSTEMS
SOLID-LIQUID EQUILIBRIA IN THE SYSTEM CAO-FEO-MNO IN CONTACT WITH METALLIC IRON V242 2389-2392
CALORIMETRY
A CALORIMETRIC STUDY OF THE RHODIUM-TIN SYSTEM V242 1553-1554
CAPACITANCE
INJECTION LUMINESCENCE IN RARE-EARTH-DOPED CDS HETEROJUNCTIONS V242 448-452
POLARIZATION EFFECTS IN INSULATING FILMS ON SILICON--A REVIEW V242 512-523
CAPACITORS
PROCESSING AND EVALUATION OF RF SPUTTERED QUARTZ V242 526-531
CARBIDES
SEE ALSO IRON CARBIDES
TUNGSTEN CARBIDE
URANIUM CARBIDE
THERMODYNAMICS OF CARBIDE FORMATION AND GRAPHITE SOLUBILITY IN THE CAO-SIO2-AL2O3 SYSTEM V242 2033-2037
CARBIDES, COATINGS
CHEMICAL VAPOR DEPOSITION OF HAFNIUM CARBIDE V242 588-591
CARBIDES, PHASES /STATE OF MATTER/
THE CAF2-CAC2 SYSTEM, AND ITS RELATION TO ELECTROSLAG REMELTING PRACTICE V242 2507-2511
CARBIDES, THERMAL PROPERTIES
DISCUSSION OF THERMAL PROPERTIES OF TANTALUM MONOCARBIDE AND TUNGSTEN MONOCARBIDE V242 1751-1752
CARBON, ALLOYING ADDITIVE
DILATION OF NICKEL LATTICE BY DISSOLVED CARBON V242 765-766
CARBON, ALLOYING ELEMENTS
INTERACTIONS OF CARBON IN SOLID SOLUTION IN COBALT V242 1211-1216
CARBON, BINARY SYSTEMS
THE YTTRIUM-CARBON SYSTEM V242 846-852
A STUDY OF THE THERMODYNAMICS OF CARBON IN AUSTENITE BY AN ELECTROCHEMICAL METHOD V242 1083-1089
CARBON, DIFFUSION
A STUDY OF THE EFFECTS OF ULTRASONICS ON DIFFUSION V242 1233-1235
MOSSBAUER EFFECT STUDY OF THE CLUSTERING OF CARBON ATOMS DURING THE ROOM-TEMPERATURE AGING OF IRON-CARBON MARTENSITE V242 1419-1430
EFFECT OF GRAIN SIZE AND TEMPERATURE ON THE STRENGTHENING OF NICKEL AND A NICKEL-COBALT ALLOY BY CARBON V242 1527-1533
THE STRENGTHENING MECHANISM IN SPHEROIDIZED CARBON STEELS V242 1535-1542
CARBON, REACTIONS /CHEMICAL/
ON THE CARBON-CARBON INTERACTION ENERGY IN IRON V242 1845-1847
CARBON, SOLUBILITY
ACTIVITY OF CARBON IN AUSTENITE V242 685-690
--DISCUSSION ON-- A MODEL FOR CONCENTRATED INTERSTITIAL SOLID SOLUTIONS.. ITS APPLICATION TO SOLUTIONS OF CARBON IN GAMMA IRON V242 731-734
DISCUSSION OF THE SOLUBILITY LIMIT AND DIFFUSIVITY OF CARBON IN MOLYBDENUM V242 1483
THE SOLUBILITY OF CARBON IN COBALT AND NICKEL V242 2129-2132
CARBON, TERNARY SYSTEMS
ACTIVITY OF CARBON IN LIQUID IRON-CARBON-CHROMIUM SOLUTIONS V242 349-350
CONSTITUTIONAL INVESTIGATIONS ON ALLOYS IN THE CARBON-CHROMIUM NICKEL-SILICON SYSTEM V242 760-761
CARBON, THERMAL PROPERTIES
THE ACTIVITY OF CARBON IN ALLOYED AUSTENITE AT 1000 C V242 35-41
CARBON, TRACE ELEMENTS
EFFECT OF CARBON ON THE STRENGTH OF THORIUM V242 922-929
CARBON COMPOUNDS
SEE CARBON DIOXIDE
CARBON DIOXIDE, REACTIONS /CHEMICAL/
METAL REOXIDATION IN ALUMINUM ELECTROLYSIS V242 301-306
CARBON STEELS
SEE ALSO KILLED STEELS
CARBON STEELS, CHEMICAL ANALYSIS
ON THE DETECTION OF RETAINED AUSTENITE IN HIGH-CARBON STEELS BY FE57 MOSSBAUER SPECTROSCOPY, WITH APPENDIX V242 1915-1925
CARBON STEELS, CRYSTAL GROWTH
THE DETERMINATION OF RAPID RECRYSTALLIZATION RATES OF AUSTENITE AT THE TEMPERATURES OF HOT DEFORMATION V242 2305-2308
CARBON STEELS, CRYSTAL LATTICES
ROLLING AND ANNEALING TEXTURES OF LOW-CARBON STEEL SHEETS V242 56-65
CARBON STEELS, MECHANICAL PROPERTIES
THE STRESS-STRAIN RATE BEHAVIOR OF A MANGANESE STEEL IN THE TEMPERATURE RANGE OF THE FERRITE-AUSTENITE TRANSFORMATION V242 1281-1287
CARBON STEELS, MICROSTRUCTURE
PEARLITE MORPHOLOGY IN THREE LOW-CARBON STEELS V242 2217-2220
CARBON STEELS, PHASE TRANSFORMATIONS
OPTIMUM TEMPERATURE FOR DECARBURIZING LOW-CARBON STEELS IN WET HYDROGEN V242 763-765
CARBON STEELS, PHASES /STATE OF MATTER/
KINETICS OF AUSTENITE FORMATION FROM A SPHEROIDIZED FERRITE-CARBIDE AGGREGATE V242 206-214
CARBON STEELS, STRUCTURAL HARDENING
THE STRENGTHENING MECHANISM IN SPHEROIDIZED CARBON STEELS V242 1535-1542
CARBONYLS, REACTIONS /CHEMICAL/,
KINETICS OF THE THERMAL DECOMPOSITION OF TUNGSTEN HEXACARBONYL V242 995-1000
CARRIER CONCENTRATION
SEE CARRIER DENSITY
CARRIER DENSITY
SEE ALSO ELECTRON DENSITY
CRYSTAL GROWTH, ANNEALING, AND DIFFUSION OF LEAD-TIN CHALCOGENIDES V242 374-383
HALL MEASUREMENTS OF ION-IMPLANTED LAYERS IN SILICON V242 1173-1180
CARRIER MOBILITY
CRYSTAL GROWTH, ANNEALING, AND DIFFUSION OF LEAD-TIN CHALCOGENIDES V242 374-383
HALL MEASUREMENTS OF ION-IMPLANTED LAYERS IN SILICON V242 1173-1180
CASE HARDENING
SEE NITRIDING
CASTING
SEE INGOT CASTING
PERMANENT MOLD CASTING
SAND CASTING
CASTING ALLOYS, CRYSTAL GROWTH
THE FORMATION OF LAYER POROSITY V242 1464-1465
CASTING ALLOYS, MECHANICAL PROPERTIES
THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390 V242 1217-1222
CASTING DEFECTS
THE FORMATION OF LAYER POROSITY V242 1464-1465
CASTINGS
SEE ALSO INGOTS
CASTINGS, MECHANICAL PROPERTIES
THE RELATION OF DUCTILITY TO DENDRITE CELL SIZE IN A CAST AL-SI-MG ALLOY V242 2063-2067
CASTINGS, MICROSTRUCTURE
THE INFLUENCE OF MECHANICAL STIRRING ON THE

COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 690-698
MICROSEGREGATION IN STEEL CASTINGS V242 853-858

CASTINGS, PHYSICAL PROPERTIES
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271

CATALYSIS
THE CATALYZED OXIDATION OF ZINC SULFIDE UNDER ACID PRESSURE LEACHING CONDITIONS V242 1815-1821

CATHODES
DETERMINATION OF THE ABSOLUTE SHORT-TERM CURRENT EFFICIENCY OF AN ALUMINUM ELECTROLYTIC CELL V242 2495-2500

CATHODIC COATINGS /OXIDE/
SEE OXIDE COATINGS

CATHODIC POLARIZATION
SEE POLARIZATION /ELECTRODES/

CAVITATION
DYNAMIC NUCLEATION OF SUPERCOOLED METALS V242 256-263

CAVITIES
SEE HOLES

CELLS
SEE ELECTROLYTIC CELLS

CELLULAR PRECIPITATES
CELLULAR PRECIPITATION IN FE-ZN ALLOYS V242 1359-1367
CELLULAR RECRYSTALLIZATION IN A NICKEL-BASE SUPERALLOY V242 1563-1568

CEMENTATION
AN ELECTROCHEMICAL INVESTIGATION OF COPPER CEMENTATION BY IRON V242 1487-1493

CEMENTITE
KINETICS OF AUSTENITE FORMATION FROM A SPHEROIDIZED FERRITE-CARBIDE AGGREGATE V242 206-214

CEMENTITE, CRYSTAL GROWTH
THE GROWTH OF CEMENTITE PARTICLES IN FERRITE V242 1853-1863

CERAMALS
SEE CERMETS

CERIUM, SOLUBILITY
SOLUBILITY OF METALS IN LIQUID SODIUM.. THE SYSTEMS SODIUM-SILVER, SODIUM-ZINC, AND SODIUM-CERIUM V242 2169-2171

CERMETS, SYNTHESIS
STRUCTURE OF REACTION- EQUALS FORMED ALUMINA-SILICON CERMETS V242 795-799

CHAPMANIZING
SEE NITRIDING

CHATTER
SEE VIBRATION

CHEMICAL ANALYSIS
SEE ALSO SPECTROCHEMICAL ANALYSIS
DETERMINATION OF THE ABSOLUTE SHORT-TERM CURRENT EFFICIENCY OF AN ALUMINUM ELECTROLYTIC CELL V242 2495-2500

CHEMICAL ATTACK
SEE INTERGRANULAR CORROSION

CHEMICAL EQUILIBRIUM
NEAR-EQUILIBRIUM KINETICS OF THE DISSOCIATION OF CUPRIC OXIDE V242 822-825

CHEMICAL KINETICS
SEE REACTION KINETICS

CHEMICAL POLISHING /METALLURGY/
SEE METALLOGRAPHY

CHEMICAL PROPERTIES
SEE HEAT OF FORMATION

CHEMICAL REACTORS
SIMULATION OF TOPOCHEMICAL REDUCTION OF HEMATITE VIA INTERMEDIATE OXIDES IN AN ISOTHERMAL COUNTERCURRENT REACTOR V242 618-625

CHEMICAL REDUCTION
SEE REDUCTION /CHEMICAL/

CHEMICAL TESTS
SEE CHEMICAL ANALYSIS

CHEMISORBING
SEE CHEMISORPTION

CHEMISORPTION
IRON-SULFUR SYSTEM. PT. 1. GROWTH RATE OF FERROUS SULFIDE ON IRON AND DIFFUSIVITIES OF IRON IN FERROUS SULFIDE V242 1665-1672
IRON-SULFUR SYSTEM. PT. 2. RATE OF REACTION OF HYDROGEN SULFIDE WITH FERROUS SULFIDE V242 1673-1678

CHEMISTRY
SEE ELECTROCHEMISTRY
SURFACE CHEMISTRY

CHI PHASE
THERMALLY INDUCED PHASE TRANSFORMATIONS IN IRON CARBIDES V242 1091-1100

CHROMIUM, ALLOYING ELEMENTS
ATHERMAL TRANSFORMATIONS IN THE IRON-CHROMIUM SYSTEM V242 673-682
CHROMIUM SOLUBILITY IN WUSTITE AT 1000 C CHANGES IN OXYGEN ACTIVITY AND LATTICE PARAMETER V242 1259-1265
THE EFFECT OF ALLOYING ELEMENTS ON THE SOLUBILITY OF NITROGEN IN LIQUID IRON-CHROMIUM-NICKEL ALLOYS V242 2501-2505

CHROMIUM, BINARY SYSTEMS
PHASE RELATIONSHIPS IN THE SYSTEM CHROMIUM-SILICON V242 1509-1515
THERMODYNAMIC PROPERTIES OF SOLID CR-AL ALLOYS AT 1000 C V242 1685-1688
THE CHEMICAL ACTIVITIES OF IRON AND CHROMIUM IN BINARY FE-CR ALLOYS V242 1719-1726

CHROMIUM, INTERMETALLICS
ON THE TRANSFORMATION OF ZRCR2 V242 2241-2242

CHROMIUM, REACTIONS /CHEMICAL/
THE ACTIVITY OF CR IN LIQUID NI-CR ALLOYS V242 2007-2008

CHROMIUM, SOLUBILITY
THE SOLID SOLUBILITIES OF SILVER, ALUMINUM, CHROMIUM, COPPER, AND IRON IN ZONE-REFINED BERYLLIUM V242 1385-1391

CHROMIUM, TERNARY SYSTEMS
ACTIVITY OF CARBON IN LIQUID IRON-CARBON-CHROMIUM SOLUTIONS V242 349-350

CHROMIUM BASE ALLOYS, MECHANICAL PROPERTIES
ENHANCED DUCTILITY IN BINARY CHROMIUM ALLOYS V242 1837-1843

CHROMIUM COATINGS
SEE CHROMIUM

CHROMIUM COMPOUNDS, TERNARY SYSTEMS
CONSTITUTIONAL INVESTIGATIONS ON ALLOYS IN THE CARBON-CHROMIUM NICKEL-SILICON SYSTEM V242 760-761

CHROMIUM COMPOUNDS, THIN FILMS
SILICON-CHROMIUM ELECTRON-BEAM-DEPOSITED RESISTIVE FILMS V242 490-497

CHROMIUM STEELS
SEE ALSO AUSTENITIC STAINLESS STEELS
STAINLESS STEELS

CHROMIUM STEELS, PHASE TRANSFORMATIONS
ISOTHERMAL TRANSFORMATIONS IN AN FE-7.9CR-1.1C ALLOY V242 79-82

CIRCUITS
SEE INTEGRATED CIRCUITS

CLAD METALS, DIFFUSION
BOND DEGRADATION MECHANISMS IN THE 75 PCT CU-25 PCT NI/CU/75 PCT CU-25 PCT NI COINAGE COMPOSITE V242 295-300

CLAD WIRE
SEE CLAD METALS

CLADDINGS
SEE CLAD METALS

CLOSE PACKED HEXAGON
SEE HEXAGONAL LATTICE

CLUSTERING
SPINODAL DECOMPOSITION V242 166-180
MOSSBAUER EFFECT STUDY OF THE CLUSTERING OF CARBON ATOMS DURING THE ROOM-TEMPERATURE AGING OF IRON-CARBON MARTENSITE V242 1419-1430

COATINGS
SEE ALSO CLAD METALS
OXIDE COATINGS
PROTECTIVE COATINGS
VACUUM DEPOSITED COATINGS
VAPOR DEPOSITED COATINGS

COATINGS, THERMAL PROPERTIES
ON THE NATURE OF THE CHILL ZONE IN INGOT SOLIDIFICATION V242 1121-1125

COBALT, ALLOYING ELEMENTS
DISPERSED-PARTICLE DEFORMATION IN WC-CO ALLOYS V242 1181-1182
ENHANCED DUCTILITY IN BINARY CHROMIUM ALLOYS V242 1837-1843

COBALT, DIFFUSION
THE NEAR-SURFACE EFFECT FOR DIFFUSION IN SILVER V242 1897-1900
THE NEAR-SURFACE DIFFUSION ANOMALY IN GOLD V242 1963-1967
DIFFUSION OF COBALT AND IRON IN LIQUID LEAD MEASURED BY GRAIN BOUNDARY GROOVING V242 2139-2142

COBALT

COBALT, PHASE TRANSFORMATIONS
THERMODYNAMICS OF THE COBALT TRANSFORMATION V242 139-144
SOME INTERFACIAL PROPERTIES OF FCC COBALT V242 1145-1148
COBALT, SOLUBILITY
ON THE CONSTITUTION OF THE SYSTEM COBALT-LEAD TELLURIDE V242 747-749
THE SOLUBILITY OF CARBON IN COBALT AND NICKEL V242 2129-2132
COBALT BASE ALLOYS, ATOMIC PROPERTIES
INTERACTIONS OF CARBON IN SOLID SOLUTION IN COBALT V242 1211-1216
COBALT BASE ALLOYS, THERMAL PROPERTIES
THERMODYNAMIC PROPERTIES AND ORDERING IN COAL V242 1801-1807
COEFFICIENT OF EXPANSION
SEE THERMAL EXPANSION
COEFFICIENT OF THERMAL EXPANSION
SEE THERMAL EXPANSION
COLD AGING
SEE NATURAL AGING /METALLURGICAL/
COLD BENDING
SEE COLD WORKING
COLD DEFORMATION
SEE DEFORMATION
COLD DRAWING
PREFERRED ORIENTATION STUDIES OF COLD-DRAWN MARTENSITIC STEEL BARS V242 2359-2362
COLD DUCTILITY
SEE DUCTILITY
COLD FORGING
SEE COLD WORKING
COLD FORMING
SEE COLD WORKING
COLD HEADING
SEE COLD WORKING
COLD REDUCTION
SEE COLD WORKING
COLD ROLLING
ROLLING AND ANNEALING TEXTURES OF LOW-CARBON STEEL SHEETS V242 56-65
DETERMINATION OF COLD ROLLING AND RECRYSTALLIZATION TEXTURES IN COPPER SHEET BY NEUTRON DIFFRACTION V242 973-977
RECRYSTALLIZATION AND TEXTURE DEVELOPMENT IN A LOW-CARBON, ALUMINUM-KILLED STEEL V242 1149-1160
THE DEVELOPMENT OF PREFERRED ORIENTATIONS IN COLD-ROLLED NIOBIUM --COLOMBIUM-- V242 1317-1326
TEXTURE DEVELOPMENT IN --110-- --112-- CRYSTALS OF CU-4 PCT AL AT HIGH DEFORMATIONS V242 1476-1478
COLD SHORTNESS
SEE BRITTLENESS
COLD STRETCHING
SEE COLD WORKING
COLD SWAGING
SEE COLD WORKING
SWAGING
COLD WORKING
SEE ALSO COLD DRAWING
COLD ROLLING
GRAIN GROWTH AND RECRYSTALLIZATION IN THORIA-DISPERSED NICKEL AND NICHROME V242 640-648
CELLULAR RECRYSTALLIZATION IN A NICKEL-BASE SUPERALLOY V242 1563-1568
COLUMBIUM
SEE NIOBIUM
COLUMBIUM BASE ALLOYS
SEE NIOBIUM BASE ALLOYS
COLUMN PACKINGS
HEAT TRANSFER IN LIQUID METAL IRRIGATED PACKED BEDS COUNTERCURRENT TO GASES V242 1733-1740
COLUMNAR STRUCTURE
THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 690-698
THE TRANSPORT OF SOLID IN A METALLIC MELT V242 1478-1479
THE FATIGUE OF THE NICKEL-BASE SUPERALLOY, MAR-M200 IN SINGLE-CRYSTAL AND COLUMNAR-GRAINED FORMS AT ROOM TEMPERATURE V242 1869-1879
DISCUSSION OF THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 2240-2241
COMPACTS
SEE ALSO POWDER COMPACTS
COMPACTS, MECHANICAL PROPERTIES
THE NUCLEATION OF BRITTLE FRACTURE IN SINTERED TUNGSTEN AT LOW TEMPERATURES V242 703-708
DEFORMATION THEORY OF HOT PRESSING-YIELD CRITERION V242 1117-1120
EFFECT OF STRAIN RATE AND TEMPERATURE AT HIGH STRAINS ON FATIGUE BEHAVIOR OF SAP ALLOYS V242 1605-1611
COMPACTS, POWDER METALLURGY
A METHOD FOR MEASURING THE PRESSURE DISTRIBUTION IN POWDER COMPACTS V242 740
COMPLIANCE /ELASTICITY/
SEE MODULUS OF ELASTICITY
COMPOSITE MATERIALS, DIFFUSION
BOND DEGRADATION MECHANISMS IN THE 75 PCT CU-25 PCT NI/CU/75 PCT CU-25 PCT NI COINAGE COMPOSITE V242 295-300
COMPOSITE MATERIALS, MECHANICAL PROPERTIES
THE CHARPY IMPACT BEHAVIOR OF AL3NI WHISKER-REINFORCED ALUMINUM V242 1237-1247
COMPOSITES CONTAINING AGE-HARDENABLE MARAGING STEEL WIRES V242 2014-2015
COMPOSITE MATERIALS, SUPERCONDUCTIVITY
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607
COMPOSITE MATERIALS, SYNTHESIS
SYNTHESIS OF OXIDATION RESISTANT METAL DIBORIDE COMPOSITES V242 1077-1082
COMPRESSIBILITY
DISCUSSION OF THERMAL PROPERTIES OF TANTALUM MONOCARBIDE AND TUNGSTEN MONOCARBIDE V242 1751-1752
COMPRESSING
CRYSTALLOGRAPHY OF SHOCK COMPRESSION V242 335-337
COMPRESSION
SEE COMPRESSING
COMPRESSION STRENGTH
SEE COMPRESSIVE STRENGTH
COMPRESSION TESTS
PLANE-STRAIN COMPRESSION OF MAGNESIUM AND MAGNESIUM ALLOY CRYSTALS V242 5-13
DEFORMATION TWINNING IN FE-NI AND FE-NI-C MARTENSITES V242 1559-1562
COMPRESSIVE MODULUS
SEE MODULUS OF ELASTICITY
COMPRESSIVE STRENGTH
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452
COMPRESSIVE YIELD STRENGTH
SEE COMPRESSIVE STRENGTH
YIELD STRENGTH
COMPUTERS
SEE ALSO DIGITAL COMPUTERS
CRYSTALLOGRAPHIC ANGULAR RELATIONSHIPS IN HCP TITANIUM V242 724-725
COMPUTER-DIRECTED PLOTTING OF X-RAY POLE FIGURES V242 746-747
COMPUTER PLOTTING OF POLE FIGURES USING THE TERMINAL PRINTER AS OUTPUT DEVICE V242 762-763
AN ELECTRONIC DATA-PROCESSING SYSTEM FOR THE COLLECTION AND CALCULATION OF DAMPING DATA V242 2024-2025
CONCENTRATION /COMPOSITION/
ON THE ANOMALOUS BEHAVIOR OF HYDROGEN IN IRON AT LOWER TEMPERATURES V242 244-248
SEGREGATION AND CONSTITUTIONAL SUPERCOOLING IN ALLOYS SOLIDIFYING WITH A CELLULAR SOLID-LIQUID INTERFACE V242 2091-2097
CONDENSATION /PROCESS/
SEE CONDENSING
CONDENSERS /ELECTRIC/
SEE CAPACITORS
CONDENSING
ACTIVITY OF ALUMINUM IN AL-FE ALLOYS AT 1315 C V242 253-255
CONDUCTING SHEET ANALOG
SEE HEAT TRANSMISSION
CONDUCTIVITY
SEE RESISTIVITY
SUPERCONDUCTIVITY
THERMAL CONDUCTIVITY
CONDUCTIVITY /ELECTRICAL/
SEE RESISTIVITY
CONDUCTIVITY CELLS
SEE ELECTRICAL MEASUREMENTS

ELECTROLYTIC CELLS
RESISTIVITY
CONSTITUTIONAL DIAGRAMS
SEE PHASE DIAGRAMS
CONSTRUCTION MATERIALS
SEE STRUCTURAL STEELS
CONTRACTING
SEE CONTRACTION
CONTRACTION
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271
CONTROLLABILITY
SEE STABILITY
CONVECTION
CONVECTION EFFECTS IN THE CAPILLARY RESERVOIR TECHNIQUE FOR MEASURING LIQUID METAL DIFFUSION COEFFICIENTS V242 1937-1942
COOLING
SEE SUPERCOOLING
COOLING CURVES
THERMODYNAMICS OF THE COBALT TRANSFORMATION V242 139-144
THE UNDERCOOLING OF COPPER AND COPPER-OXYGEN ALLOYS V242 2133-2138
COOLING RATE
UNIDIMENSIONAL SOLIDIFICATION OF A SLAB-VARIABLE SURFACE TEMPERATURE V242 283-291
EXPERIMENTAL STUDY OF SOLIDIFICATION OF ALUMINUM-COPPER ALLOYS V242 1569-1574
PEARLITE MORPHOLOGY IN THREE LOW-CARBON STEELS V242 2217-2220
COPPER, ALLOYING ADDITIVE
THE PORTEVIN-LE CHATELIER EFFECT IN NICKEL-COPPER ALLOYS V242 333-335
COPPER, CHEMICAL ANALYSIS
THE DETERMINATION OF WATER VAPOR IN TOUGH PITCH COPPER WIRE BAR BY AN ALUMINUM REDUCTION TECHNIQUE V242 1009-1011
COPPER, COMPOSITE MATERIALS
BOND DEGRADATION MECHANISMS IN THE 75 PCT CU-25 PCT NI/CU/75 PCT CU-25 PCT NI COINAGE COMPOSITE V242 295-300
COPPER, CORROSION
CORROSION OF COPPER BY LIQUID LEAD IN AN ISOTHERMAL LOOP V242 1249-1252
COPPER, CRYSTAL LATTICES
TEXTURE DEVELOPMENT IN COPPER AND 70-30 BRASS V242 88-93
THE REPRESENTATION OF THE TEXTURES OF ROLLED COPPER, BRASS, AND ALUMINUM BY BIAXIAL POLE FIGURES V242 105-115
DETERMINATION OF COLD ROLLING AND RECRYSTALLIZATION TEXTURES IN COPPER SHEET BY NEUTRON DIFFRACTION V242 973-977
COMPILATION OF THE MODES OF ELASTIC WAVE PROPAGATION AND THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN COPPER V242 1071-1076
COPPER, DIFFUSION
UTILIZATION OF NI66 IN TRACER DIFFUSION STUDIES V242 2027-2029
COPPER, ELECTRICAL PROPERTIES
INFLUENCE OF IMPURITIES, SINTERING ATMOSPHERE, PORES AND OBSTACLES ON THE ELECTRICAL CONDUCTIVITY OF SINTERED COPPER V242 2173-2176
COPPER, ELECTROCHEMISTRY
AN ELECTROCHEMICAL INVESTIGATION OF COPPER CEMENTATION BY IRON V242 1487-1493
COPPER, EXTRACTION
THE ANODIC DISSOLUTION OF COPPER --1-- SULFIDE AND THE DIRECT RECOVERY OF COPPER AND ELEMENTAL SULFUR FROM WHITE METAL V242 780-787
COPPER, HEAT TREATMENT
THE UNDERCOOLING OF COPPER AND COPPER-OXYGEN ALLOYS V242 2133-2138
COPPER, INTERMETALLICS
ON ESTIMATING THE STRENGTH OF PARTIALLY ORDERED CRYSTALS V242 1599-1603
COPPER, MECHANICAL PROPERTIES
CONSTRAINED DEFORMATION OF SINGLE CRYSTALS V242 1587-1594
SOME OBSERVATIONS ON THE DUCTILE FRACTURE OF POLYCRYSTALLINE COPPER CONTAINING INCLUSIONS V242 1989-1995
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303
ON THE TEMPERATURE EFFECT IN THE FATIGUE FRACTURE OF COPPER AND CU-7.9 WT PCT AL ALLOY V242 2339-2342
COPPER, MICROSTRUCTURE
DEVELOPMENT OF ROLLING TEXTURE IN COPPER AND BRASS V242 314-319
COPPER, PHYSICAL PROPERTIES
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271
COPPER, SOLUBILITY
THE SOLID SOLUBILITIES OF SILVER, ALUMINUM, CHROMIUM, COPPER, AND IRON IN ZONE-REFINED BERYLLIUM V242 1385-1391
COPPER, TERNARY SYSTEMS
VAPOR PRESSURE OF SILVER OVER TERNARY LIQUID CU-AG-AU ALLOYS V242 225-231
COPPER, THERMAL PROPERTIES
THERMODYNAMIC PROPERTIES OF COPPER AND GOLD IN SILICON AND GERMANIUM V242 2055-2061
COPPER BASE ALLOYS
SEE ALSO BRASSES
COPPER BASE ALLOYS, ATOMIC PROPERTIES
ELECTRON CELL MODEL OF ALLOYS V242 215-225
COPPER BASE ALLOYS, CLAD METALS
BOND DEGRADATION MECHANISMS IN THE 75 PCT CU-25 PCT NI/CU/75 PCT CU-25 PCT NI COINAGE COMPOSITE V242 295-300
COPPER BASE ALLOYS, CRYSTAL GROWTH
TEXTURE DEVELOPMENT IN --110-- --112-- CRYSTALS OF CU-4 PCT AL AT HIGH DEFORMATIONS V242 1476-1478
COPPER BASE ALLOYS, CRYSTAL LATTICES
THE RELATIVE MAGNITUDES OF THE EXTRINSIC AND INTRINSIC STACKING FAULT ENERGIES V242 103-105
OBSERVATIONS OF ETCH-PIT ARRANGEMENTS IN ALPHA-CU/AL SINGLE CRYSTALS FORMED DURING CREEP AND AN ANALYSIS OF SUBBOUNDARY FORMATION V242 2245-2249
COPPER BASE ALLOYS, DIFFUSION
INTERFACE COMPOSITIONS, MOTION, AND LATTICE TRANSFORMATIONS IN MULTIPHASE DIFFUSION COUPLES V242 66-71
INTERDIFFUSION COEFFICIENTS IN ALPHA CU-SI BY A MOVING INTERPHASE BOUNDARY METHOD V242 738-740
TERNARY DIFFUSION IN CU-ZN-SN SOLID SOLUTIONS V242 885-890
ATOMIC MOBILITIES IN MULTICOMPONENT DIFFUSION AND THEIR DETERMINATION V242 1369-1372
COPPER BASE ALLOYS, HEAT TREATMENT
THE UNDERCOOLING OF COPPER AND COPPER-OXYGEN ALLOYS V242 2133-2138
COPPER BASE ALLOYS, MECHANICAL PROPERTIES
DEVELOPMENT OF THE FREE-MACHINING, HIGH-STRENGTH, HIGH-CONDUCTIVITY CU-CR-PB AND CU-CR-ZR-PB ALLOYS V242 947-952
FATIGUE PROPERTIES OF SOME FCC COPPER-BASED SOLID SOLUTIONS V242 1431-1436
CONSTRAINED DEFORMATION OF SINGLE CRYSTALS V242 1587-1594
THE TEMPERATURE DEPENDENCE OF MICROYIELDING IN POLYCRYSTALLINE CU 1.9 WT PCT BE V242 2163-2167
ON THE TEMPERATURE EFFECT IN THE FATIGUE FRACTURE OF COPPER AND CU-7.9 WT PCT AL ALLOY V242 2339-2342
COPPER BASE ALLOYS, MICROSTRUCTURE
FACTORS INFLUENCING THE DISLOCATION STRUCTURES IN FATIGUED METALS V242 1253-1257
ELECTRON MICROSCOPY OF CU-ZN-SI MARTENSITES V242 1849-1851
COPPER BASE ALLOYS, PHASE TRANSFORMATIONS
STRESS-INDUCED MARTENSITE IN SINGLE CRYSTALS OF CU-ZN BETA PHASE ALLOYS V242 1267-1274
COPPER BASE ALLOYS, PHYSICAL PROPERTIES
THERMAL CONDUCTIVITY AND ELECTRICAL RESISTIVITY OF BERYLLIUM COPPER FOIL V242 876-880
COPPER BASE ALLOYS, REACTIONS /CHEMICAL/
PASSIVATION REACTIONS OF NICKEL AND COPPER ALLOYS WITH FLUORINE V242 1635-1643
COPPER BASE ALLOYS, SOLUBILITY
THE SOLUBILITY OF HYDROGEN IN SOLID NI-CU ALLOYS V242 332-333
COPPER BASE ALLOYS, STRUCTURAL HARDENING
DISCONTINUOUS PRECIPITATION IN CU-1.79 WT PCT BE V242 751-752
COPPER COMPOUNDS, DIFFUSION
DIFFUSION IN THE CU3SI PHASE OF THE COPPER-SILICON

COPPER COMPOUNDS

SYSTEM V242 669-673
COPPER COMPOUNDS, ELECTROCHEMISTRY
THE ANODIC DISSOLUTION OF COPPER --1-- SULFIDE AND THE DIRECT RECOVERY OF COPPER AND ELEMENTAL SULFUR FROM WHITE METAL V242 780-787
COPPER COMPOUNDS, REDUCTION /CHEMICAL/
NEAR-EQUILIBRIUM KINETICS OF THE DISSOCIATION OF CUPRIC OXIDE V242 822-825
CORE HARDNESS
SEE HARDNESS
CORROSION
SEE ALSO INTERGRANULAR CORROSION
CORROSION OF COPPER BY LIQUID LEAD IN AN ISOTHERMAL LOOP V242 1249-1252
CORROSION CRACKING
SEE STRESS CORROSION CRACKING
CORROSION MECHANISMS
SEE INTERGRANULAR CORROSION
CORROSION RESISTANCE
GRAIN-BOUNDARY CORROSION IN ZONE-REFINED AND LOWER-PURITY ALUMINUM V242 2329-2337
CORROSION TESTS
CONTRIBUTION TO THE STUDY OF HOT CORROSION V242 1955-1961
COWPER STOVES
SEE BLAST FURNACE STOVES
CRACK GROWTH
SEE CRACK PROPAGATION
CRACK PROPAGATION
EFFECT OF RESIDUAL GAS COMPOSITION ON THE FATIGUE BEHAVIOR OF ALUMINUM V242 713-714
THE DUCTILE-BRITTLE-DUCTILE TRANSITION IN COLUMBIUM-HYDROGEN ALLOYS V242 1327-1333
FATIGUE BEHAVIOR AND CRACK PROPAGATION IN 2024-T3 ALUMINUM ALLOY IN ULTRAHIGH VACUUM AND AIR V242 1713-1718
THE FATIGUE OF THE NICKEL-BASE SUPERALLOY, MAR-M200 IN SINGLE-CRYSTAL AND COLUMNAR-GRAINED FORMS AT ROOM TEMPERATURE V242 1869-1879
STRESS CORROSION CRACKING OF 18 PCT NI MARAGING STEEL IN ACIDIFIED SODIUM CHLORIDE SOLUTION V242 1943-1953
DEFORMATION AND FRACTURE OF BERYLLIUM BICRYSTALS V242 2423-2431
CRACK RESISTANCE
SEE CRACK PROPAGATION
CRACKING /FRACTURING/
SEE ALSO STRESS CORROSION CRACKING
SOME OBSERVATIONS ON HYDROGEN EMBRITTLEMENT OF SILVER V242 237-244
INTERNAL DEFORMATION AND FRACTURE OF SECOND-ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 1127-1133
THE ANNEALING OF HYDROGEN-INDUCED MICROCRACKS IN IRON-3 PCT SILICON V242 1473-1475
HYDROGEN EMBRITTLEMENT OF STAINLESS STEEL V242 2199-2205
CRATERING /WEAR/
SEE WEAR
CREEP /MATERIALS/
SEE ALSO CREEP STRENGTH
RATE OF CREEP
EVIDENCE FOR DIFFUSIONAL CREEP WITH LOW STRAIN RATE SENSITIVITY V242 329-331
CREEP CORRELATIONS FOR BCC REFRACTORY METALS V242 345-347
CREEP MECHANISMS IN FE-4 PCT SI ALLOY V242 890-895
SOME INTERFACIAL PROPERTIES OF FCC COBALT V242 1145-1148
RESISTANCE TO HOT DEFORMATION V242 1193-1203
ACTIVATION ENERGIES FOR HIGH-TEMPERATURE STEADY-STATE CREEP IN LEAD SULFIDE--II V242 1456-1457
COMPRESSIVE CREEP OF POLYCRYSTALLINE URANIUM MONONITRIDE IN NITROGEN V242 1466-1467
THE EFFECT OF FERROMAGNETISM UPON CREEP DEFORMATION OF ALPHA IRON AND ITS SOLID-SOLUTION ALLOYS V242 1703-1708
CREEP RELAXATION AND KINKING OF AL3NI WHISKERS AT ELEVATED TEMPERATURES V242 2281-2286
CREEP /MATERIALS/, STRESS EFFECTS
TRANSIENT AND STEADY-STATE CREEP BEHAVIOR OF NICKEL, ZINC, AND IRON V242 1303-1307
CREEP LIMIT
SEE CREEP /MATERIALS/
CREEP PROPERTIES
SEE CREEP /MATERIALS/
CREEP RATE
SEE RATE OF CREEP
CREEP RESISTANCE
SEE CREEP STRENGTH
CREEP STRENGTH
ALUMINUM EXTRUSION AS THERMALLY ACTIVATED PROCESS V242 2271-2280
CREEP STRENGTH, STRESS EFFECTS
CREEP STUDY ON HIGH-PURITY POLYCRYSTALLINE BERYLLIUM V242 1933-1936
ON THE MECHANISM OF CREEP IN ALPHA IRON V242 2008-2010
CREEP TESTS
THE USE OF GRAIN STRAIN MEASUREMENTS IN STUDIES OF HIGH-TEMPERATURE CR V242 2479-2484
CREEPING
SEE CREEP /MATERIALS/
CROSS SLIP
DEFORMATION MECHANISMS IN TITANIUM AND TITANIUM-ALUMINUM ALLOYS V242 648-653
SOME EFFECTS OF OXYGEN ON THE TENSILE DEFORMATION OF POLYCRYSTALLINE ZIRCONIUM V242 661-669
DISLOCATION TANGLE FORMATION AND STRAIN AGING IN CARBURIZED SINGLE CRYSTALS OF 3.25 PCT SILICON-IRON V242 1413-1418
CROSS TENSION TEST
SEE TENSION TESTS
CRUSHING STRENGTH
SEE COMPRESSIVE STRENGTH
CRYOLITE, SOLUBILITY
THE SOLUBILITY OF ALUMINUM IN CRYOLITE MELTS V242 231-237
CRYSTAL DEFECTS
SEE ALSO DISLOCATION LOOPS
DISLOCATIONS
EDGE DISLOCATIONS
INTERSTITIAL DEFECTS
LATTICE VACANCIES
POINT DEFECTS
SCREW DISLOCATIONS
STACKING FAULTS
PLANE-STRAIN COMPRESSION OF MAGNESIUM AND MAGNESIUM ALLOY CRYSTALS V242 5-13
EVALUATION OF BULK AND EPITAXIAL GAAS BY MEANS OF X-RAY TOPOGRAPHY V242 413-424
CRYSTAL GROWTH
SEE ALSO EPITAXIAL GROWTH
CRYSTAL GROWTH, ANNEALING, AND DIFFUSION OF LEAD-TIN CHALCOGENIDES V242 374-383
SYNTHESIS AND SOLUTION GROWTH OF ALUMINUM PHOSPHIDE. PT. 1 V242 424-428
SYNTHESIS AND SOLUTION GROWTH OF ALUMINUM PHOSPHIDE. PT. 2 V242 428-432
SOLUTION GROWTH OF --ZN,HG--TE AND GA--P,AS-- CRYSTALS V242 436-441
GROWTH OF CUBIC ZINC SULFIDE FROM MOLTEN LEAD CHLORIDE V242 441-443
GROWTH OF SINGLE CRYSTALS OF ZNTE AND ZNTE1-XSEX BY TEMPERATURE GRADIEN SOLUTION ZONING V242 444-448
THE STRUCTURE OF FACETED/NONFACETED EUTECTICS V242 1043-1047
THE DENDRITE-EUTECTIC TRANSITION IN SN-PB ALLOYS V242 1275-1279
VACUUM DECANTING OF BISMUTH ALLOYS V242 1517-1521
STRESS-ENHANCED GROWTH OF AG3SB IN SILVER-ANTIMONY COUPLES V242 2343-2346
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452
CRYSTAL LATTICES
SEE ALSO BODY CENTERED CUBIC LATTICE
CUBIC LATTICE
FACE CENTERED CUBIC LATTICE
HEXAGONAL LATTICE
TETRAGONAL LATTICE
INTERACTIONS OF CARBON IN SOLID SOLUTION IN COBALT V242 1211-1216
STRAIN-INDUCED TRANSFORMATION IN AG-ZN ALLOYS V242 1353-1357
CRYSTAL ORIENTATION
SEE CRYSTAL STRUCTURE
CRYSTAL PULLING
GROWTH AND CHARACTERIZATION OF SINGLE CRYSTALS OF PBTE-SNTE V242 366-371
CRYSTAL STRUCTURE
SEE ALSO UNIT CELL
THE COMPOUND U2RU3 V242 340-341
ON THE STRUCTURE OF ALUMINUM FILMS

V242 502-511
THE METAL BORIDES IN BORON FIBER CORES., IDENTIFICATION OF MOB4 V242 754-755
THE STRUCTURE OF FACETED/NONFACETED EUTECTICS V242 1043-1047
MASSIVE AND MARTENSITIC TRANSFORMATION IN AN AG-AL ALLOY V242 1182-1184
COMPUTER AID IN INDEXING HCP FIELD-ION MICROGRAPHS V242 1186-1187
RESISTANCE TO HOT DEFORMATION V242 1193-1203
THE DEVELOPMENT OF PREFERRED ORIENTATIONS IN COLD-ROLLED NIOBIUM --COLOMBIUM-- V242 1317-1326
STRUCTURES AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 1. INTERFACIAL STRUCTURES V242 1393-1403
STRUCTURE AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 2. KINETICS OF GROWTH V242 1437-1448
THE SOLIDIFICATION OF ELECTROSLAG FLUXES V242 1462-1464
TERNARY COMPOUNDS WITH THE FE2P-TYPE STRUCTURE V242 2075-2080
--111-- --HKL-- SECONDARY RECRYSTALLIZATION IN 3PCT SILICON-IRON V242 2155-2161
ON THE TRANSFORMATION OF ZRCR2 V242 2241-2242

CRYSTAL STRUCTURE /METALLOGRAPHIC/
SEE GRAIN STRUCTURE

CRYSTALLINITY
SEE CRYSTAL STRUCTURE

CRYSTALLIZATION
SEE ALSO RECRYSTALLIZATION /METALLURGICAL/
SECONDARY RECRYSTALLIZATION
THE VARIATION OF INGOT STRUCTURE WITH COMPOSITION V242 153-154
THE TRANSPORT OF SOLID IN A METALLIC MELT V242 1478-1479
THE CELLULAR STRUCTURE IN THE SN-CD EUTECTIC V242 1785-1791
DEFORMATION OF ALPHA PLUTONIUM V242 1865-1867
THE STRUCTURE OF THE ZN-MG2ZN11 EUTECTIC V242 1891-1895
EVIDENCE FOR THE IMPORTANCE OF CRYSTALLOGRAPHIC SLIP DURING SUPERPLASTIC DEFORMATION OF EUTECTIC ZINC-ALUMINUM V242 2485-2489

CRYSTALLOGRAPHY
HETEROEPITAXIAL GROWTH OF MOLYBDENUM THIN FILMS ON INSULATING SUBSTRATES V242 75-78
CRYSTALLOGRAPHY OF SHOCK COMPRESSION V242 335-337
NUMERICAL TECHNIQUE FOR ALIGNING CRYSTALS FROM LAUE PHOTOGRAPHS V242 341-342
HETEROEPITAXIAL SILICON-ALUMINUM OXIDE INTERFACE- PT. 3. ADDITIONAL STUDIES OF THE ORIENTATION RELATIONSHIPS OF SINGLE CRYSTAL SILICON ON SAPPHIRE V242 465-469
CRYSTALLOGRAPHIC ANGULAR RELATIONSHIPS IN HCP TITANIUM V242 724-725

CRYSTALS
SEE BICRYSTALS
SINGLE CRYSTALS
WHISKERS

CUBE TEXTURE, STRESS EFFECTS
DETERMINATION OF COLD ROLLING AND RECRYSTALLIZATION TEXTURES IN COPPER SHEET BY NEUTRON DIFFRACTION V242 973-977

CUBIC LATTICE
SEE ALSO BODY CENTERED CUBIC LATTICE
FACE CENTERED CUBIC LATTICE

CUBIC LATTICE, MECHANICAL PROPERTIES
CREEP CORRELATIONS FOR BCC REFRACTORY METALS V242 345-347

CURIE POINT
SEE CURIE TEMPERATURE

CURIE TEMPERATURE
THE EFFECT OF FERROMAGNETISM UPON CREEP DEFORMATION OF ALPHA IRON AND ITS SOLID-SOLUTION ALLOYS V242 1703-1708

CURRENT DENSITY
THE SUPERCONDUCTING PERFORMANCE OF DIFFUSION-PROCESSED NB3SN--CB3SN-- DOPED WITH ZRO2 PARTICLES V242 1067-1070

CURRENT EFFICIENCY
DETERMINATION OF THE ABSOLUTE SHORT-TERM CURRENT EFFICIENCY OF AN ALUMINUM ELECTROLYTIC CELL V242 2495-2500

CURRENTS
SEE ELECTRIC CURRENT

CURVES
SEE COOLING CURVES
STRESS STRAIN CURVES
TTT CURVES

CYCLES
SEE THERMAL CYCLING

CYCLIC LOADS
EFFECT OF RESIDUAL GAS COMPOSITION ON THE FATIGUE BEHAVIOR OF ALUMINUM V242 713-714
EFFECT OF CYCLIC FREQUENCY ON THE FATIGUE BEHAVIOR OF ALUMINUM IN VACUUM V242 2011-2013
THE EFFECT OF DISPERSED HARD PARTICLES ON THE HARD- STRAIN FATIGUE BEHAVIOR OF NICKEL AT ROOM TEMPERATURE V242 2347-2353

CYCLICAL HEATING
SEE THERMAL CYCLING

CZOCHRALSKI PROCESS
SEE CRYSTAL GROWTH
CRYSTAL PULLING
SINGLE CRYSTALS

DAMPING
AN ELECTRONIC DATA-PROCESSING SYSTEM FOR THE COLLECTION AND CALCULATION OF DAMPING DATA V242 2024-2025
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303

DAMPING, STRESS EFFECTS
EFFECTS OF STATIC COMPRESSIVE LOADING ON THE INTERNAL FRICTION OF LIF V242 967-971

DAMPING CAPACITY
COMPILATION OF THE MODES OF ELASTIC WAVE PROPAGATION AND THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN COPPER V242 1071-1076
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 1. METALLOGRAPHY V242 2099-2106
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 2. THE EFFECT OF STORAGE AND OF DEFORMATION ON THE DAMPING CAPACITY OF 70/30 MN-CU ALLOY V242 2107-2109

DECARBURIZING
OPTIMUM TEMPERATURE FOR DECARBURIZING LOW-CARBON STEELS IN WET HYDROGEN V242 763-765

DECOMPOSITION
SEE EUTECTIC DECOMPOSITION
PYROLYSIS

DECOMPOSITION REACTIONS
SEE PYROLYSIS

DEEP HARDENING
SEE HARDENING

DEFECTS
SEE CASTING DEFECTS
CRYSTAL DEFECTS
DISLOCATION LOOPS
DISLOCATIONS
EDGE DISLOCATIONS
INTERSTITIAL DEFECTS
LATTICE VACANCIES
POINT DEFECTS
SCREW DISLOCATIONS
STACKING FAULTS

DEFORMATION
SEE ALSO PLASTIC DEFORMATION
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268

DEFORMING
SEE DEFORMATION

DENDRITE
SEE DENDRITIC STRUCTURE

DENDRITIC STRUCTURE
CHEMICAL VAPOR DEPOSITION OF HAFNIUM CARBIDE V242 588-591
MICROSEGREGATION IN STEEL CASTINGS V242 853-858
THE DENDRITE-EUTECTIC TRANSITION IN SN-PB ALLOYS V242 1275-1279
VACUUM DECANTING OF BISMUTH ALLOYS V242 1517-1521
THE CELLULAR STRUCTURE IN THE SN-CD EUTECTIC V242 1785-1791
THE RELATION OF DUCTILITY TO DENDRITE CELL SIZE IN A CAST AL-SI-MG ALLOY V242 2063-2067

DENSIFICATION
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607
A METHOD FOR MEASURING THE PRESSURE DISTRIBUTION IN POWDER COMPACTS V242 740

DENSITOMETERS

DENSITOMETERS

DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS V242 1483-1484

DENSITY
SEE ALSO BULK DENSITY
THE COMPOUND U2RU3 V242 340-341
DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS V242 1483-1484
THE DENSITIES OF LIQUID CADMIUM AND INDIUM V242 2237-2238
THE DENSITY AND VISCOSITY OF LIQUID THALLIUM V242 2309-2311

DENSITY, TEMPERATURE EFFECTS
THE DENSITIES OF LIQUID TIN, LEAD, AND TIN-LEAD ALLOYS V242 819-822
THE DENSITIES OF SOME LIQUID LEAD-ANTIMONY AND LEAD-ANTIMONY-TIN ALLOYS V242 859-862

DEOXIDATION
SEE DEOXIDIZING

DEOXIDIZING
A COLLISION MODEL FOR THE GROWTH AND SEPARATION OF DEOXIDATION PRODUCTS V242 94-102

DEPOSITION
SILICA FILMS BY THE OXIDATION OF SILANE V242 532-539
PREPARATION AND PROPERTIES OF SIO2 FILMS DEPOSITED FROM SIH2 AND O2 V242 546-550

DETONATION WAVES
SEE SHOCK WAVES

DEUTERIUM, BINARY SYSTEMS
THERMODYNAMICS OF THE ERBIUM-DEUTERIUM SYSTEM V242 1161-1165

DEVITRIFICATION
SEE CRYSTALLIZATION

DEW POINT METHOD
THE INFLUENCE OF THE DENSITY OF STATES ON THE THERMODYNAMIC ACTIVITY OF ZINC IN THE EPSILON PHASE OF THE AG-ZN SYSTEM V242 190-195

DIAGRAMS
SEE PHASE DIAGRAMS
S N DIAGRAMS

DIELECTRIC PROPERTIES
SEE DIELECTRICS

DIELECTRICS
SPUTTERED SILICON DIOXIDE FOR MULTILAYER INTERCONNECTS V242 523-526
PROCESSING AND EVALUATION OF RF SPUTTERED QUARTZ V242 526-531

DIES
DEPENDENCE OF TEXTURE ON PROCESSING CONDITIONS IN EXTRUDED ALUMINUM WIRES V242 1461

DIFFRACTION
SEE NEUTRON DIFFRACTION
X RAY DIFFRACTION

DIFFUSION
SEE ALSO THERMAL DIFFUSION
INTERFACE COMPOSITIONS, MOTION, AND LATTICE TRANSFORMATIONS IN MULTIPHASE DIFFUSION COUPLES V242 66-71
BOND DEGRADATION MECHANISMS IN THE 75 PCT CU-25 PCT NI/CU/75 PCT CU-25 PCT NI COINAGE COMPOSITE V242 295-300
EVIDENCE FOR DIFFUSIONAL CREEP WITH LOW STRAIN RATE SENSITIVITY V242 329-331
REPRODUCIBLE DIFFUSION OF ZINC INTO GAAS.. APPLICATION OF THE TERNARY PHASE DIAGRAM AND THE DIFFUSION AND SOLUBILITY ANALYSES V242 406-412
COMPOUND SEMICONDUCTORS FOR INTEGRATED CIRCUITRY V242 452-461
A REFORMULATION OF FICKS FIRST LAW FOR SOLID-STATE DIFFUSION V242 608-611
PERMEABILITY OF TUNGSTEN TO NITROGEN FROM 1800 TO 2600 C V242 626-630
DIFFUSION IN THE CU3SI PHASE OF THE COPPER-SILICON SYSTEM V242 669-673
THE DIFFUSION OF HYDROGEN IN TITANIUM V242 682-685
OXYGEN DIFFUSIVITY IN BCC IRON STABILIZED BY PHOSPHOROUS V242 698-700
--DISCUSSION ON-- GRAIN BOUNDARY DIFFUSION IN TUNGSTEN V242 734-736
INTERDIFFUSION COEFFICIENTS IN ALPHA CU-SI BY A MOVING INTERPHASE BOUNDARY METHOD V242 738-740
--DISCUSSION ON-- DIFFUSION CREEP IN ZIRCONIUM AND CERTAIN ZIRCONIUM ALLOYS V242 744-746
SOLUBILITY AND INTERSTITIAL MIGRATION OF OXYGEN IN BCC IRON V242 749-750
RECRYSTALLIZATION OF THORIATED NICKEL ASSOCIATED WITH IMPURITY DIFFUSION V242 750-751
SULFUR DIFFUSION THROUGH CR2O3 AT 1000 C V242 752-754
OPTIMUM TEMPERATURE FOR DECARBURIZING LOW-CARBON STEELS IN WET HYDROGEN V242 763-765
RATE OF DISSOLUTION OF ALUMINA IN MOLTEN IRON OXIDE V242 776-779
SOLID-LIQUID INTERFACE STABILITY DURING SOLIDIFICATION OF DILUTE TERNARY ALLOYS V242 800-809
TERNARY DIFFUSION IN CU-ZN-SN SOLID SOLUTIONS V242 885-890
DISCUSSION OF DIFFUSION OF PALLADIUM, SILVER, CADMIUM, INDIUM, AND TIN IN ALUMINUM V242 956
SOME INTERFACIAL PROPERTIES OF FCC COBALT V242 1145-1148
A STUDY OF THE EFFECTS OF ULTRASONICS ON DIFFUSION V242 1233-1235
CORROSION OF COPPER BY LIQUID LEAD IN AN ISOTHERMAL LOOP V242 1249-1252
OXYGEN DIFFUSION IN HYPOSTOICHIOMETRIC ZIRCONIUM OXIDE IN THE TEMPERATURE RANGE OF 875 TO 1050 C V242 1293-1298
ELECTROTRANSPORT AND RESISTIVITY IN DILUTE SOLUTIONS OF CADMIUM, MERCURY, AND TIN IN MOLTEN SODIUM V242 1335-1341
ATOMIC MOBILITIES IN MULTICOMPONENT DIFFUSION AND THEIR DETERMINATION V242 1369-1372
STRUCTURE AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 2. KINETICS OF GROWTH V242 1437-1448
THEORY OF THE LAMELLAR DENDRITIC TRANSITION IN EUTECTIC ALLOYS V242 1613-1618
SELF-DIFFUSION IN PLUTONIUM EPSILON PHASE --BCC-- V242 1679-1683
NI-AL COATING-BASE METAL INTERACTIONS IN SEVERAL NICKEL-BASE ALLOYS V242 1695-1702
THE EFFECT OF FERROMAGNETISM UPON CREEP DEFORMATION OF ALPHA IRON AND ITS SOLID-SOLUTION ALLOYS V242 1703-1708
THE NEAR-SURFACE EFFECT FOR DIFFUSION IN SILVER V242 1897-1900
HYDROGEN-INDUCED EXPANSIONS IN TITANIUM-ALUMINUM ALLOYS V242 1901-1913
CONVECTION EFFECTS IN THE CAPILLARY RESERVOIR TECHNIQUE FOR MEASURING LIQUID METAL DIFFUSION COEFFICIENTS V242 1937-1942
THE NEAR-SURFACE DIFFUSION ANOMALY IN GOLD V242 1963-1967
UTILIZATION OF NI66 IN TRACER DIFFUSION STUDIES V242 2027-2029
THE DIFFUSION OF NICKEL DURING NICKEL-INDUCED RECRYSTALLIZATION IN DOPED TUNGSTEN V242 2121-2127
DIFFUSION OF COBALT AND IRON IN LIQUID LEAD MEASURED BY GRAIN BOUNDARY GROOVING V242 2139-2142
LIQUID METALS DIFFUSION.. A MODIFIED SHEAR CELL AND MERCURY DIFFUSION MEASUREMENTS V242 2177-2184
NUMERICAL SOLUTIONS TO THE FINITE, DIFFUSION-CONTROLLED, TWO-PHASE, MOVING-INTERFACE PROBLEM --WITH PLANAR, CYLINDRICAL, AND SPHERICAL INTERFACES-- V242 2313-2321
STRESS-ENHANCED GROWTH OF AG3SB IN SILVER-ANTIMONY COUPLES V242 2343-2346
SULFUR SOLUBILITY AND INTERNAL SULFIDATION OF IRON-TITANIUM ALLOYS V242 2433-2439

DIFFUSION, ALLOYING EFFECTS
CELLULAR PRECIPITATION IN FE-ZN ALLOYS V242 1359-1367

DIFFUSION, COMPOSITION EFFECTS
DIFFUSION IN LIQUID BISMUTH-TIN ALLOYS V242 768-770

DIFFUSION COATING /PROCESS/
THE SUPERCONDUCTING PERFORMANCE OF DIFFUSION-PROCESSED NB3SN--CB3SN-- DOPED WITH ZRO2 PARTICLES V242 1067-1070

DIFFUSION COEFFICIENT
SEE DIFFUSION

DIFFUSION COUPLES
SEE DIFFUSION

DIFFUSIVITY
SOLUBILITY AND PERMEABILITY OF SULFUR IN ALPHA IRON V242 1049-1056
DISCUSSION OF THE SOLUBILITY LIMIT AND DIFFUSIVITY

OF CARBON IN MOLYBDENUM V242 1483
IRON-SULFUR SYSTEM. PT. 1. GROWTH RATE OF FERROUS SULFIDE ON IRON AND DIFFUSIVITIES OF IRON IN FERROUS SULFIDE V242 1665-1672
DIFFUSIVITY, TEMPERATURE EFFECTS
ON THE ANOMALOUS BEHAVIOR OF HYDROGEN IN IRON AT LOWER TEMPERATURES V242 244-248
DIGITAL COMPUTERS
THE INTERACTION OF DISLOCATIONS MOVING AT VELOCITIES OF 0.5C AND ABOVE.. A COMPUTER SIMULATION V242 2147-2152
DILUTION
A NOTE ON THE DARKEN-ALCOCK-RICHARDSON EQUATION FOR DILUTE SOLUTIONS OF SOLUTES IN BINARY ALLOY SOLVENTS V242 1472-1473
DIMENSIONS
SEE THICKNESS
DIODES, CRYSTAL GROWTH
ELECTROLUMINESCENCE OF VAPOR-GROWN GAAS AND GAAS1-XPX DIODES V242 400-406
DIOXIDES
SEE CARBON DIOXIDE
SILICA
DIRECT REDUCTION
A STUDY OF THE FACTORS WHICH INFLUENCE THE RATE MINIMUM PHENOMENON DURING MAGNETITE REDUCTION V242 1981-1988
DISCONTINUOUS PRECIPITATES
SEE CELLULAR PRECIPITATES
DISLOCATION JOGS
STRUCTURE AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 2. KINETICS OF GROWTH V242 1437-1448
DISLOCATION LOOPS
STUDY OF THE BETA TO ALPHA TRANSFORMATION IN LANTHANUM V242 579-587
DISLOCATION PINNING
SEE PINNING /DISLOCATION/
DISLOCATIONS
SEE ALSO DISLOCATION LOOPS
EDGE DISLOCATIONS
SCREW DISLOCATIONS
TEXTURE DEVELOPMENT IN COPPER AND 70-30 BRASS V242 88-93
IMPURITY EFFECTS ON BASAL SLIP IN ZINC SINGLE CRYSTALS V242 132-138
--DISCUSSION ON-- THE INFLUENCE OF THERMOMECHANICAL TREATMENTS ON THE MICROSTRUCTURE AND TENSILE PROPERTIES OF HASTELLOY X-280 V242 163-164
DISLOCATION STRUCTURES IN NIOBIUM --COLUMBIUM-- SINGLE CRYSTALS OBSERVED BY OPTICAL MICROSCOPY V242 196-205
DISLOCATION STRUCTURES IN SLIGHTLY STRAINED TUNGSTEN, TUNGSTEN-RHENIUM, AND TUNGSTEN-TANTALUM ALLOYS V242 634-640
GRAIN GROWTH AND RECRYSTALLIZATION IN THORIA-DISPERSED NICKEL AND NICHROME V242 640-648
THE NUCLEATION OF BRITTLE FRACTURE IN SINTERED TUNGSTEN AT LOW TEMPERATURES V242 703-708
STRUCTURAL CHANGES DURING SUPERPLASTIC DEFORMATION IN AL-78 WT PCT ZN ALLOY V242 716-719
--DISCUSSION ON-- GRAIN BOUNDARY DIFFUSION IN TUNGSTEN V242 734-736
COMPOSITIONAL EFFECTS ON THE DEFORMATION MODES, ANNEALING TWIN FREQUENCIES, AND STACKING FAULT ENERGIES OF AUSTENITIC STAINLESS STEELS V242 771-776
THE STORED ENERGY, ELECTRICAL RESISTIVITY, AND TENSILE PROPERTIES OF COLD-WORKED GOLD V242 880-884
DISLOCATION DENSITY IN SINGLE CRYSTALS OF SILICON-IRON DURING LOW CYCLE FATIGUE V242 956-958
MICROSTRAIN COMPRESSION OF BERYLLIUM AND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 2. SLIP TRACE ANALYSIS AND TRANSMISSION ELECTRON MICROSCOPY V242 987-994
COMPILATION OF THE MODES OF ELASTIC WAVE PROPAGATION AND THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN COPPER V242 1071-1076
DISLOCATION REACTIONS IN ANISOTROPIC BCC METALS V242 1101-1104
RESISTANCE TO HOT DEFORMATION V242 1193-1203
FACTORS INFLUENCING THE DISLOCATION STRUCTURES IN FATIGUED METALS V242 1253-1257
STRUCTURES AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 1. INTERFACIAL STRUCTURES V242 1393-1403
FURTHER OBSERVATIONS ON THE INDENTATION OF GERMANIUM AT ROOM TEMPERATURE V242 1479-1481
THE STRENGTHENING MECHANISM IN SPHEROIDIZED CARBON STEELS V242 1535-1542
AN X-RAY LINE-BROADENING STUDY OF RECOVERY IN MONEL 400 V242 1645-1649
CARBIDE PRECIPITATION ON IMPERFECTIONS IN SUPERALLOY MATRICES V242 1651-1656
EXPERIMENTAL STUDY OF THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN ALUMINUM CRYSTALS V242 2185-2190
SHEAR ACCOMMODATION KINKING AT SECOND ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 2207-2210
DOUBLE ACCOMMODATION KINKING AND GROWTH OF --1121-- TWINS IN ZIRCONIUM V242 2211-2215
OBSERVATIONS OF ETCH-PIT ARRANGEMENTS IN ALPHA-CU/AL SINGLE CRYSTALS FORMED DURING CREEP AND AN ANALYSIS OF SUBBOUNDARY FORMATION V242 2245-2249
ALUMINUM EXTRUSION AS THERMALLY ACTIVATED PROCESS V242 2271-2280
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303
ORIENTATION DEPENDENCE OF DISLOCATION DAMPING AND ELASTIC CONSTANTS IN FE-18CR-NI SINGLE CRYSTALS V242 2363-2364
DISLOCATIONS, STRESS EFFECTS
AN ELECTRON MICROSCOPE INVESTIGATION OF EXPLOSION-BONDED METALS V242 1057-1065
THE LOW-TEMPERATURE DEFORMATION MECHANISM OF BCC MG-14 WT PCT LI-1.5 WT PCT AL ALLOY V242 1449-1452
DISPERSION HARDENING
GRAIN GROWTH AND RECRYSTALLIZATION IN THORIA-DISPERSED NICKEL AND NICHROME V242 640-648
DISPERSION-STRENGTHENED ALUMINUM PRODUCTS WITH IMPROVED HIGH-TEMPERATURE DUCTILITY V242 954-956
DISPERSED-PARTICLE DEFORMATION IN WC-CO ALLOYS V242 1181-1182
EFFECT OF STRAIN RATE AND TEMPERATURE AT HIGH STRAINS ON FATIGUE BEHAVIOR OF SAP ALLOYS V242 1605-1611
FRACTURE IN DISPERSION-STRENGTHENED NICKEL-CHROMIUM ALLOYS V242 1657-1660
THE EFFECT OF DISPERSED HARD PARTICLES ON THE HARD-STRAIN FATIGUE BEHAVIOR OF NICKEL AT ROOM TEMPERATURE V242 2347-2353
DISPLACEMENTS /LATTICE/
SEE INTERSTITIAL DEFECTS
DISSIMILAR METALS, BONDING
AN ELECTRON MICROSCOPE INVESTIGATION OF EXPLOSION-BONDED METALS V242 1057-1065
DISSOCIATION
DISLOCATION REACTIONS IN ANISOTROPIC BCC METALS V242 1101-1104
DISSOCIATION ENERGY
SEE FREE ENERGY OF FORMATION
DISSOLUTION
SEE DISSOLVING
DISSOLVING
RATE OF DISSOLUTION OF ALUMINA IN MOLTEN IRON OXIDE V242 776-779
DISSOLUTION OF CALCINED FERRIC OXIDES V242 1025-1034
DOMAINS
SEE MAGNETIC DOMAINS
DOPING
HALL MEASUREMENTS OF ION-IMPLANTED LAYERS IN SILICON V242 1173-1180
GRAIN BOUNDARY PENETRATION OF NIOBIUM --COLUMBIUM-- BY LITHIUM V242 1205-1210
DOUBLE REFRACTION
SEE BIREFRINGENCE
DRAWING
SEE ALSO COLD DRAWING
EFFECT OF FABRICATION METHOD ON THE TEXTURE OF ALUMINUM RODS V242 180-182
TEXTURES IN DEFORMED ZIRCONIUM SINGLE CRYSTALS V242 1105-1110
DRAWING DIES
SEE DIES
DUCTILE BRITTLE TRANSITION
YIELDING, WORK HARDENING, AND CLEAVAGE IN TANTALUM-

DUCTILE BRITTLE TRANSITION

RHENIUM ALLOY SINGLE CRYSTALS V242 907-917
THE DUCTILE-BRITTLE-DUCTILE TRANSITION IN COLUMBIUM-HYDROGEN ALLOYS V242 1327-1333
THE ANNEALING OF HYDROGEN-INDUCED MICROCRACKS IN IRON-3 PCT SILICON V242 1473-1475
ENHANCED DUCTILITY IN BINARY CHROMIUM ALLOYS V242 1837-1843

DUCTILE BRITTLE TRANSITION, ALLOYING EFFECTS
ALLOY AND IMPURITY EFFECTS ON TEMPER BRITTLENESS OF STEEL V242 14-24
--DISCUSSION ON-- THE EFFECT OF NOBLE METAL ADDITIONS ON THE TOUGHNESS OF IRON-CARBON ALLOYS V242 162-163

DUCTILE BRITTLE TRANSITION, IMPURITY EFFECTS
THE EFFECT OF HYDROGEN ON THE STRUCTURE AND PROPERTIES OF VANADIUM V242 1775-1784

DUCTILE FRACTURE
EFFECT OF STRAIN RATE AND TEMPERATURE AT HIGH STRAINS ON FATIGUE BEHAVIOR OF SAP ALLOYS V242 1605-1611
FRACTURE IN DISPERSION-STRENGTHENED NICKEL-CHROMIUM ALLOYS V242 1657-1660

DUCTILE FRACTURE, IMPURITY EFFECTS
SOME OBSERVATIONS ON THE DUCTILE FRACTURE OF POLYCRYSTALLINE COPPER CONTAINING INCLUSIONS V242 1989-1995

DUCTILITY
DISPERSION-STRENGTHENED ALUMINUM PRODUCTS WITH IMPROVED HIGH-TEMPERATURE DUCTILITY V242 954-956
THE RELATION OF DUCTILITY TO DENDRITE CELL SIZE IN A CAST AL-SI-MG ALLOY V242 2063-2067

DUCTILITY, COMPOSITION EFFECTS
THE PLASTIC DEFORMATION OF NIOBIUM --COLUMBIUM-- MOLYBDENUM ALLOY SINGLE CRYSTALS V242 120-126

DUCTILITY, IMPURITY EFFECTS
SOME OBSERVATIONS ON THE DUCTILE FRACTURE OF POLYCRYSTALLINE COPPER CONTAINING INCLUSIONS V242 1989-1995

DUCTILITY, PRESSURE EFFECTS
EFFECTS OF HYDROSTATIC PRESSURE ON THE MECHANICAL BEHAVIOR OF POLYCRYSTALLINE BERYLLIUM V242 2081-2089

DYNAMICS
SEE KINETICS

DYSPROSIUM, BINARY SYSTEMS
DYSPROSIUM-LEAD SYSTEM V242 936-939

EDGE DISLOCATIONS
NUMERICAL ANALYSIS OF DEFORMATION TWIN BEHAVIOR. PT. 1. LARGE STATIC TWINS V242 1405-1412
EFFECTS OF ELASTIC ANISOTROPY ON DISLOCATIONS IN HCP METALS V242 1575-1586

EFFICIENCY
SEE CURRENT EFFICIENCY

ELASTIC CONSTANTS
SEE ALSO MODULUS OF ELASTICITY
SHEAR MODULUS
ORIENTATION DEPENDENCE OF DISLOCATION DAMPING AND ELASTIC CONSTANTS IN FE-18CR-NI SINGLE CRYSTALS V242 2363-2364

ELASTIC MODULUS
SEE MODULUS OF ELASTICITY

ELASTIC PROPERTIES
SEE ELASTIC CONSTANTS

ELASTIC WAVES
SEE SOUND WAVES

ELASTICITY, ANISOTROPY
DISLOCATION REACTIONS IN ANISOTROPIC BCC METALS V242 1101-1104
EFFECTS OF ELASTIC ANISOTROPY ON DISLOCATIONS IN HCP METALS V242 1575-1586

ELECTRIC CIRCUITS
SEE INTEGRATED CIRCUITS

ELECTRIC CONDENSERS
SEE CAPACITORS

ELECTRIC CONDUCTORS /MATERIALS/
SEE ELECTROLYTES
SUPERCONDUCTORS

ELECTRIC CURRENT
INJECTION LUMINESCENCE IN RARE-EARTH-DOPED CDS HETEROJUNCTIONS V242 448-452
POLARIZATION EFFECTS IN INSULATING FILMS ON SILICON--A REVIEW V242 512-523

ELECTRIC HEATING
SEE INDUCTION HEATING

ELECTRIC POTENTIAL
A STUDY OF THE THERMODYNAMICS OF CARBON IN AUSTENITE BY AN ELECTROCHEMICAL METHOD V242 1083-1089

ELECTRIC RESISTORS
SEE RESISTORS

ELECTRIC SLAG PROCESS
SEE ELECTROSLAG PROCESS

ELECTRICAL CONDUCTANCE
SEE ELECTRICAL RESISTANCE

ELECTRICAL CONDUCTIVITY
SEE RESISTIVITY

ELECTRICAL IMPEDANCE
SEE ELECTRICAL RESISTANCE

ELECTRICAL MEASUREMENTS
ON THE DYNAMICS OF MARTENSITIC TRANSFORMATION V242 1495-1501

ELECTRICAL PHENOMENA
SEE ELECTRIC CURRENT
ELECTRIC POTENTIAL
ELECTRODE POTENTIALS

ELECTRICAL PROPERTIES
SEE CARRIER DENSITY
CARRIER MOBILITY
ELECTRON DENSITY
RESISTIVITY
SUPERCONDUCTIVITY

ELECTRICAL RESISTANCE
ELECTRICAL RESISTIVITY OF VAPOR-DEPOSITED SILVER FILMS V242 160-161
EVIDENCE FOR A CORRELATION BETWEEN ELECTROMIGRATION AND ELECTRICAL RESISTIVITY V242 1771-1774

ELECTRICAL RESISTIVITY
SEE RESISTIVITY

ELECTROCHEMISTRY
THE THERMODYNAMIC PROPERTIES OF LIQUID ZINC-TIN-CADMIUM-LEAD SOLUTION V242 558-565
THE ANODIC DISSOLUTION OF COPPER --1-- SULFIDE AND THE DIRECT RECOVERY OF COPPER AND ELEMENTAL SULFUR FROM WHITE METAL V242 780-787
ELECTROTRANSPORT AND RESISTIVITY IN DILUTE SOLUTIONS OF CADMIUM, MERCURY, AND TIN IN MOLTEN SODIUM V242 1335-1341

ELECTRODE POTENTIALS
CHANGE OF CHEMICAL POTENTIAL OF OXYGEN IN LIQUID METALS AND LIQUID OXIDE PHASES V242 1757-1759

ELECTRODES
SEE CATHODES

ELECTROLUMINESCENCE
ELECTROLUMINESCENCE OF VAPOR-GROWN GAAS AND GAAS1-XPX DIODES V242 400-406
INJECTION LUMINESCENCE IN RARE-EARTH-DOPED CDS HETEROJUNCTIONS V242 448-452

ELECTROLYSIS
SEE ALSO HALL HEROULT PROCESS
REDUCTION /ELECTROLYTIC/
METAL REOXIDATION IN ALUMINUM ELECTROLYSIS V242 301-306

ELECTROLYTES, REACTIONS /CHEMICAL/
METAL REOXIDATION IN ALUMINUM ELECTROLYSIS V242 301-306

ELECTROLYTIC CELLS
GALVANIC CELL STUDIES USING A MOLTEN OXIDE ELECTROLYTE. PT. 1. THERMODYNAMIC PROPERTIES OF THE LEAD-SILVER SYSTEM V242 183-189
A STUDY OF THE THERMODYNAMICS OF CARBON IN AUSTENITE BY AN ELECTROCHEMICAL METHOD V242 1083-1089
DETERMINATION OF THE ABSOLUTE SHORT-TERM CURRENT EFFICIENCY OF AN ALUMINUM ELECTROLYTIC CELL V242 2495-2500

ELECTROLYTIC POLISHING /METALLURGY/
SEE METALLOGRAPHY

ELECTROLYTIC REDUCTION
SEE REDUCTION /ELECTROLYTIC/

ELECTROMAGNETIC WAVES
SEE THERMAL RADIATION

ELECTROMOTIVE FORCE
SEE ELECTRIC POTENTIAL

ELECTROMOTIVE FORCE SERIES
SEE ELECTRODE POTENTIALS

ELECTROMOTIVE SERIES
SEE ELECTRODE POTENTIALS

ELECTRON BOMBARDMENT
SEE IRRADIATION

ELECTRON DENSITY
ELECTRON CELL MODEL OF ALLOYS V242 215-225

ELECTRON FLUX

SEE ELECTRON DENSITY
ELECTRON METALLOGRAPHY
SEE ELECTRON MICROSCOPY
ELECTRON MICROSCOPY
SEE ALSO TRANSMISSION ELECTRON MICROSCOPY
AN ELECTRON MICROSCOPE INVESTIGATION OF EXPLOSION-BONDED METALS V242 1057-1065
ELECTRON STRUCTURE
SEE ATOMIC STRUCTURE
ELECTRONIC GENERATORS
SEE SIGNAL GENERATORS
ELECTROPOTENTIAL
SEE ELECTRIC POTENTIAL
ELECTROSLAG CASTING
SEE ELECTROSLAG PROCESS
ELECTROSLAG MELTING
SEE ELECTROSLAG PROCESS
ELECTROSLAG PROCESS
THE SOLIDIFICATION OF ELECTROSLAG FLUXES V242 1462-1464
THE CAF2-CAC2 SYSTEM, AND ITS RELATION TO ELECTROSLAG REMELTING PRACTICE V242 2507-2511
ELECTROSLAG REFINING
SEE ELECTROSLAG PROCESS
ELECTROWINNING
SEE HALL HEROULT PROCESS
ELONGATION
THE RELATION BETWEEN SUPERPLASTICITY AND GRAIN BOUNDARY SHEAR IN THE ALUMINUM-ZINC EUTECTOID ALLOY V242 25-31
STRUCTURAL CHANGES DURING SUPERPLASTIC DEFORMATION IN AL-78 WT PCT ZN ALLOY V242 716-719
THE STRESS-STRAIN RATE BEHAVIOR OF A MANGANESE STEEL IN THE TEMPERATURE RANGE OF THE FERRITE-AUSTENITE TRANSFORMATION V242 1281-1287
THE ELONGATION OF SUPERPLASTIC ALLOYS V242 2221-2227
EMBRITTLEMENT
SEE ALSO HYDROGEN EMBRITTLEMENT
GRAIN BOUNDARY PENETRATION AND EMBRITTLEMENT OF NICKEL BICRYSTALS BY BISMUTH V242 1343-1351
EMISSION SPECTROSCOPY
SEE SPECTROSCOPY
ENDURANCE /TESTING/
SEE FATIGUE /MATERIALS/
ENDURANCE LIMIT
SEE FATIGUE LIMIT
ENERGY
SEE BINDING ENERGY /NUCLEAR/
FREE ENERGY OF ACTIVATION
FREE ENERGY OF FORMATION
HEAT OF FORMATION
HEAT OF FUSION
HEAT OF MIXING
HEAT OF SOLUTION
HEAT OF VAPORIZATION
INTERNAL ENERGY
SPECIFIC HEAT
SURFACE ENERGY
ENERGY OF ACTIVATION
SEE FREE ENERGY OF ACTIVATION
ENERGY OF DISSOCIATION
SEE FREE ENERGY OF FORMATION
ENERGY OF FORMATION
SEE FREE ENERGY OF FORMATION
ENGINES /APPLICATIONS/
SEE AUTOMOTIVE ENGINES
ENLARGING
SEE EXPANSION
ENTHALPY
THERMODYNAMIC ANALYSIS OF DILUTE TERNARY SYSTEMS. PT. 1. THE AG-AU-SN SYSTEM V242 291-295
THE HEAT OF FORMATION OF THE COMPOUND AUSB2 AND THE PARTIAL ENTHALPIES AND ENTHALPY INTERACTION COEFFICIENTS OF ANTIMONY AND GOLD IN LIQUID TIN V242 1453-1454
ON THE MECHANISM OF CREEP IN ALPHA IRON V242 2008-2010
ENTHALPY OF FORMATION OF CAMG2 V242 2045-2049
LOW-TEMPERATURE HEAT CAPACITY AND HIGH TEMPERATURE ENTHALPY OF CAMG2 V242 2051-2054
THERMODYNAMIC PROPERTIES OF COPPER AND GOLD IN SILICON AND GERMANIUM V242 2055-2061
SOLUBILITY OF METALS IN LIQUID SODIUM.. THE SYSTEMS SODIUM-SILVER, SODIUM-ZINC, AND SODIUM-CERIUM V242 2169-2171
ENTROPY
SEE ALSO ENTROPY OF ACTIVATION
ENTROPY OF FORMATION
THERMODYNAMICS OF BINARY METALLIC SOLUTIONS. PT. 2 V242 1997-2005
LOW-TEMPERATURE HEAT CAPACITY AND HIGH TEMPERATURE ENTHALPY OF CAMG2 V242 2051-2054
THERMODYNAMIC PROPERTIES OF COPPER AND GOLD IN SILICON AND GERMANIUM V242 2055-2061
THE SOLUBILITY OF CARBON IN COBALT AND NICKEL V242 2129-2132
SOLUBILITY OF METALS IN LIQUID SODIUM.. THE SYSTEMS SODIUM-SILVER, SODIUM-ZINC, AND SODIUM-CERIUM V242 2169-2171
ENTROPY OF ACTIVATION
THERMODYNAMIC PROPERTIES OF INTERSTITIAL SOLUTIONS OF IRON-BASE ALLOYS V242 1135-1143
ENTROPY OF FORMATION
THERMODYNAMIC PROPERTIES OF SOLID RHODIUM-PALLADIUM ALLOYS V242 1523-1526
EPITAXIAL GROWTH
HETEROEPITAXIAL GROWTH OF MOLYBDENUM THIN FILMS ON INSULATING SUBSTRATES V242 75-78
ELECTROLUMINESCENCE OF VAPOR-GROWN GAAS AND GAAS1-XPX DIODES V242 400-406
EVALUATION OF BULK AND EPITAXIAL GAAS BY MEANS OF X-RAY TOPOGRAPHY V242 413-424
EPITAXIAL GROWTH OF GASB FROM THE LIQUID PHASE V242 432-436
COMPOUND SEMICONDUCTORS FOR INTEGRATED CIRCUITRY V242 452-461
PLANAR GUNN OSCILLATOR FOR MICROWAVE INTEGRATED CIRCUITS V242 461-464
EPITAXY
HETEROEPITAXIAL SILICON-ALUMINUM OXIDE INTERFACE-PT. 3. ADDITIONAL STUDIES OF THE ORIENTATION RELATIONSHIPS OF SINGLE CRYSTAL SILICON ON SAPPHIRE V242 465-469
EPSILON PHASE
THE INFLUENCE OF THE DENSITY OF STATES ON THE THERMODYNAMIC ACTIVITY OF ZINC IN THE EPSILON PHASE OF THE AG-ZN SYSTEM V242 190-195
HIGH-TEMPERATURE STABILITY OF EPSILON TIXN V242 343-345
THERMALLY INDUCED PHASE TRANSFORMATIONS IN IRON CARBIDES V242 1091-1100
EPSILON PHASE, DIFFUSION
SELF-DIFFUSION IN PLUTONIUM EPSILON PHASE --BCC-- V242 1679-1683
EQUIAXED STRUCTURE
ATHERMAL TRANSFORMATIONS IN THE IRON-CHROMIUM SYSTEM V242 673-682
THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 690-698
BETA GRAIN SIZE DETERMINATION IN AN EQUIAXED ALPHA PLUS BETA TITANIUM ALLOY V242 755-756
THE INFLUENCE OF STRUCTURE ON THE FLOW STRESS-STRAIN RATE BEHAVIOR OF AN-AL ALLOYS V242 825-832
THE TRANSPORT OF SOLID IN A METALLIC MELT V242 1478-1479
DISCUSSION OF THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 2240-2241
EQUILIBRIUM
SEE CHEMICAL EQUILIBRIUM
EQUILIBRIUM CONSTANTS
SEE CHEMICAL EQUILIBRIUM
EQUILIBRIUM DIAGRAMS
SEE PHASE DIAGRAMS
ERBIUM, BINARY SYSTEMS
THE ERBIUM-HYDROGEN SYSTEM V242 903-907
THERMODYNAMICS OF THE ERBIUM-DEUTERIUM SYSTEM V242 1161-1165
ETCH PITTING
DISLOCATION STRUCTURES IN NIOBIUM --COLUMBIUM-- SINGLE CRYSTALS OBSERVED BY OPTICAL MICROSCOPY V242 196-205
ETCHING
SEE ETCH PITTING
ETCHING /METALLURGY/
SEE METALLOGRAPHY
EUROPIUM, SORPTION
HIGH-TEMPERATURE ABSORPTION OF YVO4 AND YVO4..EU V242 714-716
EUTECTIC COMPOSITION
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452
EUTECTIC DECOMPOSITION

EUTECTIC DECOMPOSITION

THE DENDRITE-EUTECTIC TRANSITION IN SN-PB ALLOYS V242 1275-1279

EUTECTIC REACTIONS
SEE ALSO EUTECTIC DECOMPOSITION
CONSTITUTIONAL INVESTIGATIONS ON ALLOYS IN THE CARBON-CHROMIUM NICKEL-SILICON SYSTEM V242 760-761
DYSPROSIUM-LEAD SYSTEM V242 936-939
THE YTTERBIUM-ZINC PHASE DIAGRAM V242 1167-1171
THE CELLULAR STRUCTURE IN THE SN-CD EUTECTIC V242 1785-1791
THE STRUCTURE OF THE ZN-MG2ZN11 EUTECTIC V242 1891-1895

EUTECTICS
PHASE RELATIONS IN THE SYSTEM SNTE-SNSE V242 709-712
ON THE CONSTITUTION OF THE SYSTEM COBALT-LEAD TELLURIDE V242 747-749
DISCUSSION OF THE SOLUBILITY LIMIT AND DIFFUSIVITY OF CARBON IN MOLYBDENUM V242 1483
THEORY OF THE LAMELLAR DENDRITIC TRANSITION IN EUTECTIC ALLOYS V242 1613-1618
NUCLEATION AND GROWTH OF THE PB-SN EUTECTIC V242 1627-1633

EUTECTICS, MICROSTRUCTURE
THE STRUCTURE OF FACETED/NONFACETED EUTECTICS V242 1043-1047

EXCHANGERS /HEAT/
SEE HEAT EXCHANGERS

EXPANDING
SEE EXPANSION

EXPANSION
SEE ALSO THERMAL EXPANSION

EXPANSION, IMPURITY EFFECTS
HYDROGEN-INDUCED EXPANSIONS IN TITANIUM-ALUMINUM ALLOYS V242 1901-1913

EXPANSIVITY
SEE EXPANSION

EXPLOSIVE BONDING
SEE EXPLOSIVE WELDING

EXPLOSIVE WELDING
AN ELECTRON MICROSCOPE INVESTIGATION OF EXPLOSION-BONDED METALS V242 1057-1065

EXTRACTION
THE ANODIC DISSOLUTION OF COPPER --1-- SULFIDE AND THE DIRECT RECOVERY OF COPPER AND ELEMENTAL SULFUR FROM WHITE METAL V242 780-787

EXTRACTIVE METALLURGY
THE LEAD SMELTER TODAY V242 552-557

EXTRUSION
EFFECT OF FABRICATION METHOD ON THE TEXTURE OF ALUMINUM RODS V242 180-182
DEPENDENCE OF TEXTURE ON PROCESSING CONDITIONS IN EXTRUDED ALUMINUM WIRES V242 1461
ALUMINUM EXTRUSION AS THERMALLY ACTIVATED PROCESS V242 2271-2280

EXTRUSION COMPACTING
SEE EXTRUSION

EXTRUSION PRESSING
SEE EXTRUSION

FACE CENTERED CUBIC LATTICE
ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C V242 631-633
INDENTIFICATION OF THE STRENGTHENING PHASE IN INCONEL ALLOY 718 V242 1764-1765
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303

FACE CENTERED TETRAGONAL LATTICE
SEE TETRAGONAL LATTICE

FATIGUE /MATERIALS/
SEE ALSO FATIGUE LIFE
FATIGUE LIMIT
FATIGUE STRENGTH
S N DIAGRAMS
DISLOCATION DENSITY IN SINGLE CRYSTALS OF SILICON-IRON DURING LOW CYCLE FATIGUE V242 956-958

FATIGUE CRACKING
SEE FATIGUE FAILURE

FATIGUE FAILURE, TEMPERATURE EFFECTS
ON THE TEMPERATURE EFFECT IN THE FATIGUE FRACTURE OF COPPER AND CU-7.9 WT PCT AL ALLOY V242 2339-2342

FATIGUE FRACTURE
SEE FATIGUE FAILURE

FATIGUE LIFE
EFFECT OF STRAIN RATE AND TEMPERATURE AT HIGH STRAINS ON FATIGUE BEHAVIOR OF SAP ALLOYS V242 1605-1611
FATIGUE BEHAVIOR AND CRACK PROPAGATION IN 2024-T3 ALUMINUM ALLOY IN ULTRAHIGH VACUUM AND AIR V242 1713-1718

FATIGUE LIFE, PRESSURE EFFECTS
EFFECT OF RESIDUAL GAS COMPOSITION ON THE FATIGUE BEHAVIOR OF ALUMINUM V242 713-714

FATIGUE LIFE, STRESS EFFECTS
EFFECT OF CYCLIC FREQUENCY ON THE FATIGUE BEHAVIOR OF ALUMINUM IN VACUUM V242 2011-2013

FATIGUE LIMIT
FATIGUE BEHAVIOR OF TITANIUM V242 1223-1230

FATIGUE PROPERTIES
SEE FATIGUE /MATERIALS/

FATIGUE STRENGTH
FATIGUE BEHAVIOR OF TITANIUM V242 1223-1230
FATIGUE PROPERTIES OF SOME FCC COPPER-BASED SOLID SOLUTIONS V242 1431-1436
THE FATIGUE OF THE NICKEL-BASE SUPERALLOY, MAR-M200 IN SINGLE-CRYSTAL AND COLUMNAR-GRAINED FORMS AT ROOM TEMPERATURE V242 1869-1879
THE EFFECT OF DISPERSED HARD PARTICLES ON THE HARD-STRAIN FATIGUE BEHAVIOR OF NICKEL AT ROOM TEMPERATURE V242 2347-2353

FATIGUE TESTS
FACTORS INFLUENCING THE DISLOCATION STRUCTURES IN FATIGUED METALS V242 1253-1257

FAULTS /STACKING/
SEE STACKING FAULTS

FERRIC COMPOUNDS
SEE IRON COMPOUNDS

FERRITE, REACTIONS /CHEMICAL/
ON THE CARBON-CARBON INTERACTION ENERGY IN IRON V242 1845-1847

FERROMAGNETIC FILMS
SEE THIN FILMS

FERROMAGNETIC MATERIALS
SEE MAGNETITE

FERROMAGNETISM
THE EFFECT OF FERROMAGNETISM UPON CREEP DEFORMATION OF ALPHA IRON AND ITS SOLID-SOLUTION ALLOYS V242 1703-1708

FERROUS ALLOYS
SEE ALSO ALLOY STEELS
STEELS
ORIENTATION DEPENDENCE OF DISLOCATION DAMPING AND ELASTIC CONSTANTS IN FE-18CR-NI SINGLE CRYSTALS V242 2363-2364

FERROUS ALLOYS, CHEMICAL ANALYSIS
ON THE DETECTION OF RETAINED AUSTENITE IN HIGH-CARBON STEELS BY FE57 MOSSBAUER SPECTROSCOPY, WITH APPENDIX V242 1915-1925

FERROUS ALLOYS, CRYSTAL GROWTH
CELLULAR PRECIPITATION IN FE-ZN ALLOYS V242 1359-1367
THE EFFECT OF MANGANESE ON THE SECONDARY RECRYSTALLIZATION OF SILICON-IRON V242 1457-1458
--111-- --HKL-- SECONDARY RECRYSTALLIZATION IN 3PCT SILICON-IRON V242 2155-2161

FERROUS ALLOYS, CRYSTAL LATTICES
CHROMIUM SOLUBILITY IN WUSTITE AT 1000 C CHANGES IN OXYGEN ACTIVITY AND LATTICE PARAMETER V242 1259-1265
DEFORMATION AND TRANSFORMATION TWINNING MODES IN FE-NI AND FE-NI-C MARTENSITES V242 1555-1558
DEFORMATION TWINNING IN FE-NI AND FE-NI-C MARTENSITES V242 1559-1562
FE-SI ALLOYS.. ORDERING IN THE RANGE FROM 10 TO 23 AT. PCT SI V242 2287-2294
LATTICE PARAMETERS AS A FUNCTION OF TITANIUM IN AUSTENITIC FE-NI-TI ALLOYS V242 2365-2367

FERROUS ALLOYS, HEAT TREATMENT
THE ANNEALING OF HYDROGEN-INDUCED MICROCRACKS IN IRON-3 PCT SILICON V242 1473-1475

FERROUS ALLOYS, MECHANICAL PROPERTIES
--DISCUSSION ON-- THE EFFECT OF NOBLE METAL ADDITIONS ON THE TOUGHNESS OF IRON-CARBON ALLOYS V242 162-163
INFLUENCE OF A 3.28 PCT NICKEL ADDITION ON THE YIELD AND FRACTURE BEHAVIOR OF ALPHA IRON V242 306-314
DISCUSSION OF SOLID-SOLUTION STRENGTHENING IN IRON-BASE ALLOYS V242 351-352
CREEP MECHANISMS IN FE-4 PCT SI ALLOY V242 890-895

RESISTANCE TO HOT DEFORMATION V242 1193-1203
ON ESTIMATING THE STRENGTH OF PARTIALLY ORDERED CRYSTALS V242 1599-1603
THE EFFECT OF FERROMAGNETISM UPON CREEP DEFORMATION OF ALPHA IRON AND ITS SOLID-SOLUTION ALLOYS V242 1703-1708
ON THE MECHANISM OF CREEP IN ALPHA IRON V242 2008-2010
FERROUS ALLOYS, MICROSTRUCTURE
ULTRASONIC ATTENUATION STUDIES OF MIXED MICROSTRUCTURES IN STEEL V242 1543-1551
FERROUS ALLOYS, OXIDATION
INTERNAL OXIDATION OF IRON-MANGANESE ALLOYS V242 1035-1042
FERROUS ALLOYS, PHASE TRANSFORMATIONS
ATHERMAL TRANSFORMATIONS IN THE IRON-CHROMIUM SYSTEM V242 673-682
MOSSBAUER EFFECT STUDY OF THE CLUSTERING OF CARBON ATOMS DURING THE ROOM-TEMPERATURE AGING OF IRON-CARBON MARTENSITE V242 1419-1430
ON THE DYNAMICS OF MARTENSITIC TRANSFORMATION V242 1495-1501
SHOCK-WAVE-INDUCED REVERSE MARTENSITIC TRANSFORMATION IN FE-30 PCT NI V242 2017-2019
ON THE MECHANISM OF THE MARTENSITE-TO-AUSTENITE REVERSE TRANSFORMATION IN AN FE-NI ALLOY V242 2019-2021
DISCUSSION OF ON THE MECHANISM OF THE MARTENSITE-TO-AUSTENITE REVERSE TRANSFORMATION IN AN FE-NI ALLOY V242 2021-2022
FERROUS ALLOYS, PHASES /STATE OF MATTER/
KINETICS OF AUSTENITE FORMATION FROM A SPHEROIDIZED FERRITE-CARBIDE AGGREGATE V242 206-214
FERROUS ALLOYS, SOLUBILITY
SOLUBILITY OF SULFUR IN IRON ALLOYS AT 1000 C V242 161-162
THERMODYNAMIC PROPERTIES OF INTERSTITIAL SOLUTIONS OF IRON-BASE ALLOYS V242 1135-1143
THE SOLUBILITY OF NITROGEN IN LIQUID IRON AND LIQUID IRON-CARBON ALLOYS V242 1309-1315
NITROGEN SOLUBILITY IN LIQUID FE-CR-NI ALLOYS V242 2457-2459
THE EFFECT OF ALLOYING ELEMENTS ON THE SOLUBILITY OF NITROGEN IN LIQUID IRON-CHROMIUM-NICKEL ALLOYS V242 2501-2505
FERROUS ALLOYS, STRUCTURAL HARDENING
THE AGING CHARACTERISTICS OF AN FE-11 AT.PCT. MO ALLOY V242 1001-1007
THE MICROPLASTIC RESPONSE OF PARTIALLY TRANSFORMED FE-31NI V242 1741-1749
EXPERIMENTAL SUPPORT FOR HARD MARTENSITE V242 1766-1767
FERROUS ALLOYS, SURFACE PROPERTIES
FORMATION OF JACOBSITE AND PYROXMANGITE ON A 3 PCT SILICON-IRON ALLOY CONTAINING SMALL AMOUNTS OF MANGANESE V242 1759-1761
FERROUS COMPOUNDS
SEE IRON COMPOUNDS
FERROUS METALS
SEE FERROUS ALLOYS
FETTLING /CLEANING/
SEE CASTINGS
FIBER METALLURGY
THE METAL BORIDES IN BORON FIBER CORES., IDENTIFICATION OF MOB4 V242 754-755
COMPOSITES CONTAINING AGE-HARDENABLE MARAGING STEEL WIRES V242 2014-2015
FIBERS
SEE WHISKERS
FIELD ION MICROSCOPY
COMPUTER AID IN INDEXING HCP FIELD-ION MICROGRAPHS V242 1186-1187
FIELDS /PHYSICS/
SEE MAGNETIC FIELDS
FILMS
SEE THIN FILMS
FINSIDER PROCESS
SEE DIRECT REDUCTION
FLAME REDUCTION PROCESS
SEE DIRECT REDUCTION
FLEXURAL VIBRATION
SEE FATIGUE /MATERIALS/
FLOTATION
THE RELEVANCE OF STOKES LAW TO THE PHYSICAL CONDITIONS OF STEELMAKING V242 1475-1476
FLOW
SEE ALSO GAS FLOW
KNUDSEN FLOW
PLASTIC FLOW
VISCOUS FLOW
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268
FLUID BED REDUCTION
SEE FLUIDIZED BED REDUCTION
FLUID FLOW
SEE GAS FLOW
KNUDSEN FLOW
VISCOUS FLOW
FLUID MECHANICS
THE RELEVANCE OF STOKES LAW TO THE PHYSICAL CONDITIONS OF STEELMAKING V242 1475-1476
FLUIDITY
SEE VISCOSITY
FLUIDIZED BED REDUCTION
THERMAL DECOMPOSITION OF PYRITE IN A FLUIDIZED BED V242 896-902
FLUIDS
SEE GASES
FLUORESCENCE
SEE X RAY FLUORESCENCE
FLUORIDES
EFFECTS OF STATIC COMPRESSIVE LOADING ON THE INTERNAL FRICTION OF LIF V242 967-971
FLUORIDES, PHASES /STATE OF MATTER/
THE CAF2-CAC2 SYSTEM, AND ITS RELATION TO ELECTROSLAG REMELTING PRACTICE V242 2507-2511
FLUORINATION
PASSIVATION REACTIONS OF NICKEL AND COPPER ALLOYS WITH FLUORINE V242 1635-1643
FLUORINE, REACTIONS /CHEMICAL/
PASSIVATION REACTIONS OF NICKEL AND COPPER ALLOYS WITH FLUORINE V242 1635-1643
FLUTTER
SEE VIBRATION
FLUXES, CRYSTAL GROWTH
THE SOLIDIFICATION OF ELECTROSLAG FLUXES V242 1462-1464
FOIL BRAZING
SEE METAL FOILS
FOILS /UNSUPPORTED METAL FILMS/
SEE METAL FOILS
FORCE
SEE CYCLIC LOADS
LOADS /FORCES/
FORMATION ENTROPY
SEE ENTROPY OF FORMATION
FORMS /MOLDS/
SEE MOLDS
FRACTOGRAPHY
FRACTURE IN DISPERSION-STRENGTHENED NICKEL-CHROMIUM ALLOYS V242 1657-1660
THE FATIGUE OF THE NICKEL-BASE SUPERALLOY, MAR-M200 IN SINGLE-CRYSTAL AND COLUMNAR-GRAINED FORMS AT ROOM TEMPERATURE V242 1869-1879
FRACTURE STRENGTH, HEATING EFFECTS
THE ANNEALING OF HYDROGEN-INDUCED MICROCRACKS IN IRON-3 PCT SILICON V242 1473-1475
FRACTURE TOUGHNESS
INFLUENCE OF WORK-HARDENING EXPONENT ON THE FRACTURE TOUGHNESS OF HIGH-STRENGTH MATERIALS V242 320-328
FRACTURE TOUGHNESS AND STRAIN-INDUCED PHASE TRANSFORMATIONS V242 2371-2373
FRACTURE TOUGHNESS, ALLOYING EFFECTS
INFLUENCE OF A 3.28 PCT NICKEL ADDITION ON THE YIELD AND FRACTURE BEHAVIOR OF ALPHA IRON V242 306-314
FRACTURING
SEE ALSO DUCTILE FRACTURE
THE NUCLEATION OF BRITTLE FRACTURE IN SINTERED TUNGSTEN AT LOW TEMPERATURES V242 703-708
THE RELATION OF DUCTILITY TO DENDRITE CELL SIZE IN A CAST AL-SI-MG ALLOY V242 2063-2067
DEFORMATION AND FRACTURE OF BERYLLIUM BICRYSTALS V242 2423-2431
FRACTURING, IMPURITY EFFECTS
SOME OBSERVATIONS ON THE DUCTILE FRACTURE OF POLYCRYSTALLINE COPPER CONTAINING INCLUSIONS V242 1989-1995
FREE ENERGY
SEE FREE ENERGY OF ACTIVATION
FREE ENERGY OF FORMATION
FREE ENERGY OF ACTIVATION
THE RELATIVE MAGNITUDES OF THE EXTRINSIC AND INTRINSIC STACKING FAULT ENERGIES V242 103-105

FREE ENERGY OF ACTIVATION
VAPOR PRESSURE OF SILVER OVER TERNARY LIQUID CU-AG-AU ALLOYS V242 225-231
SOLUBILITY AND INTERSTITIAL MIGRATION OF OXYGEN IN BCC IRON V242 749-750
CREEP MECHANISMS IN FE-4 PCT SI ALLOY V242 890-895
SOME INTERFACIAL PROPERTIES OF FCC COBALT V242 1145-1148
CELLULAR PRECIPITATION IN FE-ZN ALLOYS V242 1359-1367
SELF-DIFFUSION IN PLUTONIUM EPSILON PHASE --BCC-- V242 1679-1683
FREE ENERGY OF DISSOCIATION
SEE FREE ENERGY OF FORMATION
FREE ENERGY OF FORMATION
ELECTRON CELL MODEL OF ALLOYS V242 215-225
THE FREE ENERGY OF FORMATION OF RES2 V242 2143-2145
FUEL PELLETS
SEE PELLETS
FUSED SALT ELECTROLYSIS
SEE HALL HEROULT PROCESS

GALLIUM, TERNARY SYSTEMS
REPRODUCIBLE DIFFUSION OF ZINC INTO GAAS.. APPLICATION OF THE TERNARY PHASE DIAGRAM AND THE DIFFUSION AND SOLUBILITY ANALYSES V242 406-412
GALLIUM COMPOUNDS, CRYSTAL GROWTH
EVALUATION OF BULK AND EPITAXIAL GAAS BY MEANS OF X-RAY TOPOGRAPHY V242 413-424
EPITAXIAL GROWTH OF GASB FROM THE LIQUID PHASE V242 432-436
PLANAR GUNN OSCILLATOR FOR MICROWAVE INTEGRATED CIRCUITS V242 461-464
GALLIUM COMPOUNDS, SEMICONDUCTORS
ELECTROLUMINESCENCE OF VAPOR-GROWN GAAS AND GAAS1-XPX DIODES V242 400-406
COMPOUND SEMICONDUCTORS FOR INTEGRATED CIRCUITRY V242 452-461
GALLIUM COMPOUNDS, SINGLE CRYSTALS
SOLUTION GROWTH OF --ZN,HG--TE AND GA--P,AS-- CRYSTALS V242 436-441
GALVANIC CELLS
SEE ELECTROLYTIC CELLS
GALVANNEALING
SEE ANNEALING
GAMMA IRON, SOLUBILITY
--DISCUSSION ON-- A MODEL FOR CONCENTRATED INTERSTITIAL SOLID SOLUTIONS.. ITS APPLICATION TO SOLUTIONS OF CARBON IN GAMMA IRON V242 731-734
SULFUR SOLUBILITY AND INTERNAL SULFIDATION OF IRON-TITANIUM ALLOYS V242 2433-2439
GAMMA IRRADIATION
SEE IRRADIATION
GAMMA PHASE
SEE GAMMA PRIME PHASE
GAMMA PRIME PHASE
INDENTIFICATION OF THE STRENGTHENING PHASE IN INCONEL ALLOY 718 V242 1764-1765
GAS
SEE GASES
GAS FLOW
SEE ALSO KNUDSEN FLOW
ON NONISOTHERMAL FLOW OF GASES THROUGH PACKED BEDS V242 918-921
GAS PERMEABILITY
SEE PERMEABILITY
GAS PHASES /METALLURGICAL/
CHANGE OF CHEMICAL POTENTIAL OF OXYGEN IN LIQUID METALS AND LIQUID OXIDE PHASES V242 1757-1759
GAS TURBINES
SIGMA--ITS OCCURRENCE, EFFECT, AND CONTROL IN NICKEL-BASE SUPERALLOYS V242 2399-2414
GASES
HEAT TRANSFER IN LIQUID METAL IRRIGATED PACKED BEDS COUNTERCURRENT TO GASES V242 1733-1740
GERMANIUM, BINARY SYSTEMS
PHASE DIAGRAMS AND THERMODYNAMIC PROPERTIES OF THE MG-SI AND MG-GE SYSTEMS V242 2323-2328
GERMANIUM, MECHANICAL PROPERTIES
OBSERVATIONS ON THE PLASTICITY OF GERMANIUM V242 338-339
GERMANIUM, METALLOGRAPHY
FURTHER OBSERVATIONS ON THE INDENTATION OF GERMANIUM AT ROOM TEMPERATURE V242 1479-1481
GERMANIUM, THERMAL PROPERTIES
THERMODYNAMIC PROPERTIES OF COPPER AND GOLD IN SILICON AND GERMANIUM V242 2055-2061
GETTERING
METALLOGRAPHIC ANALYSIS OF GETTERED SILICON V242 484-489
GLASS, REACTIONS /CHEMICAL/
FORMATION OF PHOSPHOSILICATE GLASS FILMS ON SILICON DIOXIDE V242 539-545
GLOBULES
SEE SPHERES
GOLD, ALLOYING ELEMENTS
THE SOLUBILITY OF OXYGEN IN LIQUID SILVER-GOLD, SILVER-PLATINUM, AND SILVER-PALLADIUM ALLOYS V242 869-875
OXYGEN-ALLOYING ELEMENT INTERACTIONS IN LIQUID SILVER V242 929-935
GOLD, BINARY SYSTEMS
THE PSEUDOBINARY SECTION OF PBTE AND GOLD V242 150-151
DETERMINATION OF THE MISCIBILITY GAP IN THE AU-NI SYSTEM BY MEANS OF THE MOSSBAUER EFFECT V242 1503-1507
GOLD, CRYSTAL LATTICES
COLLAPSED TETRAHEDRA AND STACKING FAULT ENERGY IN GOLD V242 347-349
GOLD, DIFFUSION
THE NEAR-SURFACE DIFFUSION ANOMALY IN GOLD V242 1963-1967
GOLD, INTERMETALLICS
THE HEAT OF FORMATION OF THE COMPOUND AUSB2 AND THE PARTIAL ENTHALPIES AND ENTHALPY INTERACTION COEFFICIENTS OF ANTIMONY AND GOLD IN LIQUID TIN V242 1453-1454
ON ESTIMATING THE STRENGTH OF PARTIALLY ORDERED CRYSTALS V242 1599-1603
GOLD, MECHANICAL PROPERTIES
THE STORED ENERGY, ELECTRICAL RESISTIVITY, AND TENSILE PROPERTIES OF COLD-WORKED GOLD V242 880-884
GOLD, TERNARY SYSTEMS
VAPOR PRESSURE OF SILVER OVER TERNARY LIQUID CU-AG-AU ALLOYS V242 225-231
THERMODYNAMIC ANALYSIS OF DILUTE TERNARY SYSTEMS. PT. 1. THE AG-AU-SN SYSTEM V242 291-295
THE GOLD-TIN-LEAD ALLOYS--THE GOLD-TIN-LEAD SYSTEM V242 2257-2261
GOLD, THERMAL PROPERTIES
THERMODYNAMIC PROPERTIES OF COPPER AND GOLD IN SILICON AND GERMANIUM V242 2055-2061
GOLD SILVER ALLOY PLATING
SEE ALLOY PLATING
GP ZONE
SEE GUINIER PRESTON ZONE
GRAIN BOUNDARIES
THE RELATION BETWEEN SUPERPLASTICITY AND GRAIN BOUNDARY SHEAR IN THE ALUMINUM-ZINC EUTECTOID ALLOY V242 25-31
SOME OBSERVATIONS ON HYDROGEN EMBRITTLEMENT OF SILVER V242 237-244
--DISCUSSION ON-- GRAIN BOUNDARY DIFFUSION IN TUNGSTEN V242 734-736
DISCONTINUOUS PRECIPITATION IN CU-1.79 WT PCT BE V242 751-752
THE GROWTH OF M23C6 CARBIDE ON GRAIN BOUNDARIES IN AN AUSTENITIC STAINLESS STEEL V242 814-819
SOME INTERFACIAL PROPERTIES OF FCC COBALT V242 1145-1148
RECRYSTALLIZATION AND TEXTURE DEVELOPMENT IN A LOW-CARBON, ALUMINUM-KILLED STEEL V242 1149-1160
TWIN BOUNDARIES IN ALUMINUM V242 1188-1190
GRAIN BOUNDARY PENETRATION OF NIOBIUM --COLUMBIUM-- BY LITHIUM V242 1205-1210
GRAIN BOUNDARY PENETRATION AND EMBRITTLEMENT OF NICKEL BICRYSTALS BY BISMUTH V242 1343-1351
THE STRENGTHENING MECHANISM IN SPHEROIDIZED CARBON STEELS V242 1535-1542
GRAIN BOUNDARY SLIDING, MIGRATION, AND DEFORMATION IN HIGH-PURITY ALUMINUM V242 1823-1830
DEFORMATION OF ALPHA PLUTONIUM V242 1865-1867
DIFFUSION OF COBALT AND IRON IN LIQUID LEAD MEASURED BY GRAIN BOUNDARY GROOVING V242 2139-2142
DISCUSSION OF THE CONTRIBUTION OF GRAIN BOUNDARY SLIDING TO THE OVERALL STRAIN OF A POLYCRYSTAL V242 2238-2240

OBSERVATIONS OF ETCH-PIT ARRANGEMENTS IN ALPHA-CU/AL SINGLE CRYSTALS FORMED DURING CREEP AND AN ANALYSIS OF SUBBOUNDARY FORMATION V242 2245-2249
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303
THE USE OF GRAIN STRAIN MEASUREMENTS IN STUDIES OF HIGH-TEMPERATURE CR V242 2479-2484
EVIDENCE FOR THE IMPORTANCE OF CRYSTALLOGRAPHIC SLIP DURING SUPERPLASTIC DEFORMATION OF EUTECTIC ZINC-ALUMINUM V242 2485-2489

GRAIN GROWTH
GRAIN GROWTH AND RECRYSTALLIZATION IN THORIA-DISPERSED NICKEL AND NICHROME V242 640-648
SECONDARY RECRYSTALLIZATION IN IRON V242 833-843
THE GROWTH OF CEMENTITE PARTICLES IN FERRITE V242 1853-1863

GRAIN ORIENTATION
THE GROWTH OF M23C6 CARBIDE ON GRAIN BOUNDARIES IN AN AUSTENITIC STAINLESS STEEL V242 814-819

GRAIN SIZE
THE RELATIONSHIP BETWEEN LOWER YIELD STRESS AND GRAIN SIZE IN ARMCO IRON V242 115-119
BETA GRAIN SIZE DETERMINATION IN AN EQUIAXED ALPHA PLUS BETA TITANIUM ALLOY V242 755-756
THE STRESS-STRAIN RATE BEHAVIOR OF A MANGANESE STEEL IN THE TEMPERATURE RANGE OF THE FERRITE-AUSTENITE TRANSFORMATION V242 1281-1287
EFFECT OF GRAIN SIZE AND TEMPERATURE ON THE STRENGTHENING OF NICKEL AND A NICKEL-COBALT ALLOY BY CARBON V242 1527-1533
THE INFLUENCE OF GRAIN SIZE AND SPECIMEN SIZE ON THE UPPER YIELD STRESS OF IRON V242 1595-1597
DISCUSSION OF THE RELATIONSHIP BETWEEN LOWER YIELD STRESS AND GRAIN SIZE IN ARMCO IRON V242 1762

GRAIN STRUCTURE
STRUCTURE OF REACTION- EQUALS FORMED ALUMINA-SILICON CERMETS V242 795-799
THE UNDERCOOLING OF COPPER AND COPPER-OXYGEN ALLOYS V242 2133-2138

GRAIN STRUCTURE, COOLING EFFECTS
ON THE NATURE OF THE CHILL ZONE IN INGOT SOLIDIFICATION V242 1121-1125

GRAIN STRUCTURE, STRESS EFFECTS
AN ELECTRON MICROSCOPE INVESTIGATION OF EXPLOSION-BONDED METALS V242 1057-1065

GRAPHITE, SOLUBILITY
THERMODYNAMICS OF CARBIDE FORMATION AND GRAPHITE SOLUBILITY IN THE CAO-SIO2-AL2O3 SYSTEM V242 2033-2037

GRAVITY DIE CASTING
SEE PERMANENT MOLD CASTING

GRIT SIZE
SEE PARTICLE SIZE DISTRIBUTION

GROWTH
SEE CRYSTAL GROWTH
EPITAXIAL GROWTH
GRAIN GROWTH

GUINIER PRESTON ZONE
PRECIPITATION IN CYCLICALLY STRAINED AL-4 WT PCT CU--THE FORMATION OF GUINIER-PRESTON ZONES V242 1727-1731

HAFNIUM COMPOUNDS, COATINGS
CHEMICAL VAPOR DEPOSITION OF HAFNIUM CARBIDE V242 588-591

HAFNIUM COMPOUNDS, COMPOSITE MATERIALS
SYNTHESIS OF OXIDATION RESISTANT METAL DIBORIDE COMPOSITES V242 1077-1082

HALIDES
SEE FLUORIDES

HALL COEFFICIENT
SEE HALL EFFECT

HALL CONDUCTIVITY
SEE HALL EFFECT

HALL CONSTANT
SEE HALL EFFECT

HALL EFFECT
HALL MEASUREMENTS OF ION-IMPLANTED LAYERS IN SILICON V242 1173-1180

HALL EMF
SEE HALL EFFECT

HALL HEROULT PROCESS
DETERMINATION OF THE ABSOLUTE SHORT-TERM CURRENT EFFICIENCY OF AN ALUMINUM ELECTROLYTIC CELL V242 2495-2500

HALL MOBILITY
SEE CARRIER MOBILITY
HALL EFFECT

HALL POTENTIAL
SEE HALL EFFECT

HALL VOLTAGE
SEE HALL EFFECT

HALOGENATION
SEE FLUORINATION

HALOGENS
SEE FLUORINE

HARDENABILITY, COMPOSITION EFFECTS
THE INFLUENCE OF NITROGEN, TITANIUM, AND ZIRCONIUM ON THE BORON HARDENABILITY EFFECT IN CONSTRUCTIONAL ALLOY STEELS V242 1689-1694

HARDENING
SEE ALSO AGING /METALLURGICAL/
NATURAL AGING /METALLURGICAL/
PRECIPITATION HARDENING
STRAIN AGING
STRAIN HARDENING
FATIGUE PROPERTIES OF SOME FCC COPPER-BASED SOLID SOLUTIONS V242 1431-1436

HARDNESS
SEE ALSO KNOOP HARDNESS NUMBER
MICROHARDNESS
DEVELOPMENT OF THE FREE-MACHINING, HIGH-STRENGTH, HIGH-CONDUCTIVITY CU-CR-PB AND CU-CR-ZR-PB ALLOYS V242 947-952
THE AGING CHARACTERISTICS OF AN FE-11 AT.PCT. MO ALLOY V242 1001-1007
THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390 V242 1217-1222

HARDNESS TESTS
SEE KNOOP HARDNESS TESTS

HEAT CAPACITY
SEE SPECIFIC HEAT

HEAT CONDUCTION
SEE HEAT TRANSMISSION

HEAT CONDUCTIVITY
SEE THERMAL CONDUCTIVITY

HEAT EXCHANGERS
CORROSION OF COPPER BY LIQUID LEAD IN AN ISOTHERMAL LOOP V242 1249-1252

HEAT FLOW
SEE HEAT TRANSMISSION

HEAT FLUX
SEE HEAT TRANSMISSION

HEAT LOSS
THE EFFECT OF SLAG THICKNESS ON HEAT LOSS FROM LADLES HOLDING MOLTEN STEEL V242 961-965

HEAT OF CONDENSATION
SEE HEAT OF VAPORIZATION

HEAT OF DECOMPOSITION
SEE HEAT OF FORMATION

HEAT OF DISSOCIATION
SEE HEAT OF FORMATION

HEAT OF DISSOLUTION
SEE HEAT OF SOLUTION

HEAT OF FORMATION
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER V242 272-277
THE HEAT OF FORMATION OF THE COMPOUND AUSB2 AND THE PARTIAL ENTHALPIES AND ENTHALPY INTERACTION COEFFICIENTS OF ANTIMONY AND GOLD IN LIQUID TIN V242 1453-1454
A CALORIMETRIC STUDY OF THE RHODIUM-TIN SYSTEM V242 1553-1554
A STUDY OF THE FREE ENERGIES OF FORMATION OF URANIUM MONOCARBIDE AND URANIUM DICARBIDE V242 1809-1813
HEATS OF SOLUTION AND HEATS OF COMPOUND FORMATION IN THE LANTHANUM-TIN SYSTEMS V242 2013-2014
ON THE TEMPERATURE DEPENDENCE OF THE HEAT OF FORMATION OF THE COMPOUND AGMG V242 2367-2369

HEAT OF FUSION
A MODIFIED HEAT OF FUSION FOR USE IN THE MATHEMATICAL FORMULATION OF SOLIDIFICATION PROCESSES V242 1289-1292

HEAT OF HYDROGENATION
SEE HYDROGENATION

HEAT OF MIXING
ELECTRON CELL MODEL OF ALLOYS V242 215-225
THERMODYNAMIC PROPERTIES OF SOLID CR-AL ALLOYS AT

HEAT OF MIXING
1000 C V242 1685-1688
A THERMODYNAMIC STUDY OF LIQUID MANGANESE-TIN ALLOYS V242 1709-1711
THERMODYNAMICS OF BINARY METALLIC SOLUTIONS. PT. 2 V242 1997-2005
HEAT OF SOLIDIFICATION
SEE HEAT OF FUSION
HEAT OF SOLUTION
THERMODYNAMIC ANALYSIS OF DILUTE TERNARY SYSTEMS. PT. 1. THE AG-AU-SN SYSTEM V242 291-295
SOLUBILITY AND INTERSTITIAL MIGRATION OF OXYGEN IN BCC IRON V242 749-750
SULFUR IN LIQUID IRON ALLOYS.. PT. 1. BINARY FE-S V242 940-946
HEATS OF SOLUTIONS OF TELLURIUM IN LIQUID TIN V242 1481-1483
A CALORIMETRIC STUDY OF THE RHODIUM-TIN SYSTEM V242 1553-1554
HEATS OF SOLUTION AND HEATS OF COMPOUND FORMATION IN THE LANTHANUM-TIN SYSTEMS V242 2013-2014
HEAT OF VAPORIZATION
THE VAPOR PRESSURE OF LIQUID SILVER V242 719-721
HEAT RESISTANT ALLOYS, THERMAL PROPERTIES
THERMAL CONDUCTIVITY OF FOUR HEAT-RESISTANT ALLOYS V242 844-846
HEAT TRANSFER
THE TRANSIENT HEATING OR COOLING OF SPHERES BY THERMAL RADIATION AT THE BOUNDING SURFACE V242 612-618
ON THE NATURE OF THE CHILL ZONE IN INGOT SOLIDIFICATION V242 1121-1125
HEAT TRANSFER IN LIQUID METAL IRRIGATED PACKED BEDS COUNTERCURRENT TO GASES V242 1733-1740
HEAT TRANSMISSION
THE EFFECT OF SLAG THICKNESS ON HEAT LOSS FROM LADLES HOLDING MOLTEN STEEL V242 961-965
HEAT TREATMENT
SEE ANNEALING
HOMOGENIZING /METALLURGICAL/
NATURAL AGING /METALLURGICAL/
NITRIDING
OVERAGING
PRECIPITATION HARDENING
RECRYSTALLIZATION /METALLURGICAL/
SOLUTION HEAT TREATMENT
THERMOMECHANICAL TREATMENT
HEATING
SEE INDUCTION HEATING
HEATING EQUIPMENT
SEE BLAST FURNACE STOVES
HEATS /ENERGIES/
SEE HEAT OF FORMATION
HEAT OF FUSION
HEAT OF MIXING
HEAT OF SOLUTION
HEAT OF VAPORIZATION
SPECIFIC HEAT
HEMATITE
DISSOLUTION OF CALCINED FERRIC OXIDES V242 1025-1034
HEMATITE, REDUCTION /CHEMICAL/
SIMULATION OF TOPOCHEMICAL REDUCTION OF HEMATITE VIA INTERMEDIATE OXIDES IN AN ISOTHERMAL COUNTERCURRENT REACTOR V242 618-625
A STUDY OF THE FACTORS WHICH INFLUENCE THE RATE MINIMUM PHENOMENON DURING MAGNETITE REDUCTION V242 1981-1988
REDUCTION KINETICS OF HEMATITE TO MAGNETITE IN HYDROGEN-WATER VAPOR MIXTURES V242 2471-2477
HEXAGONAL CLOSE PACKED LATTICE
SEE HEXAGONAL LATTICE
HEXAGONAL LATTICE
ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C V242 631-633
COMPUTER PROGRAM FOR CALCULATING INTERPLANAR ANGLES AND INDEXING BACK-REFLECTION LAUE FILMS OF HEXAGONAL CRYSTALS V242 1468-1469
EFFECTS OF ELASTIC ANISOTROPY ON DISLOCATIONS IN HCP METALS V242 1575-1586
TERNARY COMPOUNDS WITH THE FE2P-TYPE STRUCTURE V242 2075-2080
HIGH ALLOY STEELS
SEE MARAGING STEELS
HIGH STRENGTH STEELS, MECHANICAL PROPERTIES
INFLUENCE OF WORK-HARDENING EXPONENT ON THE FRACTURE TOUGHNESS OF HIGH-STRENGTH MATERIALS V242 320-328
HIGH TEMPERATURE TESTS
EFFECT OF STRAIN RATE AND TEMPERATURE AT HIGH STRAINS ON FATIGUE BEHAVIOR OF SAP ALLOYS V242 1605-1611
HOT COMPRESSION OF ARMCO IRON AND SILICON STEEL V242 1619-1626
HOLES, RADIATION EFFECTS
STABILIZED CAVITIES IN IRRADIATED AUSTENITIC STAINLESS STEEL V242 2010-2011
HOMOGENIZING /METALLURGICAL/
NUMERICAL SOLUTIONS TO THE FINITE, DIFFUSION-CONTROLLED, TWO-PHASE, MOVING-INTERFACE PROBLEM --WITH PLANAR, CYLINDRICAL, AND SPHERICAL INTERFACES-- V242 2313-2321
HOT BRITTLENESS
SEE BRITTLENESS
HOT COINING
SEE HOT WORKING
HOT COMPACTING
SEE HOT PRESSING
HOT COMPRESSION
SEE HOT PRESSING
HOT CRACKING
SEE CRACKING /FRACTURING/
HOT DEFORMATION
SEE HOT WORKING
HOT DUCTILITY
SEE DUCTILITY
HOT EXTRACTION
SEE EXTRACTION
HOT EXTRUSION
SEE EXTRUSION
HOT WORKING
HOT FINISHING
SEE HOT WORKING
HOT FORGING
SEE HOT WORKING
HOT FORMING
SEE HOT WORKING
HOT HARDNESS
SEE HARDNESS
HOT HEADING
SEE HOT WORKING
HOT PRESSING
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607
A METHOD FOR MEASURING THE PRESSURE DISTRIBUTION IN POWDER COMPACTS V242 740
HOT COMPRESSION OF ARMCO IRON AND SILICON STEEL V242 1619-1626
HOT REDUCTION
SEE HOT WORKING
HOT ROLLING
ROLLING AND ANNEALING TEXTURES OF LOW-CARBON STEEL SHEETS V242 56-65
THE EFFECT OF MANGANESE ON THE SECONDARY RECRYSTALLIZATION OF SILICON-IRON V242 1457-1458
HOT ROUGHING
SEE HOT ROLLING
HOT SHAPING
SEE HOT WORKING
HOT SHORTNESS
SEE BRITTLENESS
HOT STRENGTH
SEE TENSILE STRENGTH
HOT SWAGING
SEE HOT WORKING
SWAGING
HOT TENSILE STRENGTH
SEE TENSILE STRENGTH
HOT TORSION TESTS
SEE TORSION TESTS
HOT TWISTING
SEE HOT WORKING
HOT WORKABILITY
SEE HOT WORKING
HOT WORKING
SEE ALSO AUSFORMING
SUPERPLASTICITY IN 60ZN-40AL V242 740-742
RESISTANCE TO HOT DEFORMATION V242 1193-1203
HYDROGEN
SEE ALSO DEUTERIUM
HYDROGEN, BINARY SYSTEMS
THE ERBIUM-HYDROGEN SYSTEM V242 903-907
HYDROGEN, DIFFUSION
ON THE ANOMALOUS BEHAVIOR OF HYDROGEN IN IRON AT LOWER TEMPERATURES V242 244-248

THE DIFFUSION OF HYDROGEN IN TITANIUM V242 682-685
HYDROGEN-INDUCED EXPANSIONS IN TITANIUM-ALUMINUM ALLOYS V242 1901-1913
HYDROGEN, SOLUBILITY
THE SOLUBILITY OF HYDROGEN IN SOLID NI-CU ALLOYS V242 332-333
THE SOLUBILITY OF HYDROGEN IN LIQUID SILVER V242 343
HYDROGEN, TRACE ELEMENTS
THE EFFECT OF HYDROGEN ON THE STRUCTURE AND PROPERTIES OF VANADIUM V242 1775-1784
HYDROGEN COMPOUNDS
SEE HYDROGEN SULFIDE
HYDROGEN EMBRITTLEMENT
SOME OBSERVATIONS ON HYDROGEN EMBRITTLEMENT OF SILVER V242 237-244
THE DETERMINATION OF WATER VAPOR IN TOUGH PITCH COPPER WIRE BAR BY AN ALUMINUM REDUCTION TECHNIQUE V242 1009-1011
THE DUCTILE-BRITTLE-DUCTILE TRANSITION IN COLUMBIUM-HYDROGEN ALLOYS V242 1327-1333
HYDROGEN EMBRITTLEMENT OF STAINLESS STEEL V242 2199-2205
HYDROGEN EMBRITTLEMENT, IMPURITY EFFECTS
THE EFFECT OF HYDROGEN ON THE STRUCTURE AND PROPERTIES OF VANADIUM V242 1775-1784
HYDROGEN POTENTIAL
SEE ELECTRODE POTENTIALS
HYDROGEN SULFIDE, REACTIONS /CHEMICAL/
IRON-SULFUR SYSTEM, PT. 2. RATE OF REACTION OF HYDROGEN SULFIDE WITH FERROUS SULFIDE V242 1673-1678
HYDROGENATION
THE DUCTILE-BRITTLE-DUCTILE TRANSITION IN COLUMBIUM-HYDROGEN ALLOYS V242 1327-1333
HYDROGENIZATION
SEE HYDROGENATION
HYDROSTATIC PRESSURE
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271
EFFECTS OF HYDROSTATIC PRESSURE ON THE MECHANICAL BEHAVIOR OF POLYCRYSTALLINE BERYLLIUM V242 2081-2089
HYPEREUTECTIC STRUCTURES
THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390 V242 1217-1222
HYPERSTOICHIOMETRY
SEE NONSTOICHIOMETRIC COMPOUNDS
HYPOSTOICHIOMETRY
SEE NONSTOICHIOMETRIC COMPOUNDS

I R DROP
SEE ELECTRIC POTENTIAL
IMPACT STRENGTH
THE CHARPY IMPACT BEHAVIOR OF AL3NI WHISKER-REINFORCED ALUMINUM V242 1237-1247
IMPEDANCE
SEE ELECTRICAL RESISTANCE
IMPERMEABILITY
SEE PERMEABILITY
INCLUSIONS
SEE NONMETALLIC INCLUSIONS
INCONEL, STRUCTURAL HARDENING
INDENTIFICATION OF THE STRENGTHENING PHASE IN INCONEL ALLOY 718 V242 1764-1765
INCONEL, THERMAL PROPERTIES
THERMAL CONDUCTIVITY OF FOUR HEAT-RESISTANT ALLOYS V242 844-846
INDENTATION
FURTHER OBSERVATIONS ON THE INDENTATION OF GERMANIUM AT ROOM TEMPERATURE V242 1479-1481
INDIUM, DIFFUSION
DISCUSSION OF DIFFUSION OF PALLADIUM, SILVER, CADMIUM, INDIUM, AND TIN IN ALUMINUM V242 956
INDIUM, PHYSICAL PROPERTIES
DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS V242 1483-1484
THE DENSITIES OF LIQUID CADMIUM AND INDIUM V242 2237-2238
INDUCTION HEATING
THE KINETICS OF OXYGEN EFFUSION FROM INDUCTION-STIRRED LIQUID SILVER V242 1458-1460
INELASTICITY
SEE ELASTICITY
INGOT CASTING
MACROSEGREGATION. PT. 2 V242 41-49
MACROSEGREGATION. PT. 3 V242 50-55
--DISCUSSION ON-- MACROSEGREGATION.. PT. 1 V242 757-759
THE RELEVANCE OF STOKES LAW TO THE PHYSICAL CONDITIONS OF STEELMAKING V242 1475-1476
INGOTS, CRYSTAL GROWTH
THE TRANSPORT OF SOLID IN A METALLIC MELT V242 1478-1479
INGOTS, MICROSTRUCTURE
THE VARIATION OF INGOT STRUCTURE WITH COMPOSITION V242 153-154
THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 690-698
--DISCUSSION ON-- MACROSEGREGATION.. PT. 1 V242 757-759
ON THE NATURE OF THE CHILL ZONE IN INGOT SOLIDIFICATION V242 1121-1125
INSTABILITY
SEE STABILITY
INTEGRATED CIRCUITS
COMPOUND SEMICONDUCTORS FOR INTEGRATED CIRCUITRY V242 452-461
PLANAR GUNN OSCILLATOR FOR MICROWAVE INTEGRATED CIRCUITS V242 461-464
MOLYBDENUM THIN-FILM RESISTORS FOR INTEGRATED CIRCUITS V242 497-501
INTERCRYSTALLINE STRUCTURE
SEE INTERGRANULAR STRUCTURE
INTERFACIAL ENERGY
SEE SURFACE ENERGY
INTERGRANULAR CORROSION
GRAIN BOUNDARY PENETRATION AND EMBRITTLEMENT OF NICKEL BICRYSTALS BY BISMUTH V242 1343-1351
GRAIN-BOUNDARY CORROSION IN ZONE-REFINED AND LOWER-PURITY ALUMINUM V242 2329-2337
INTERGRANULAR PRECIPITATION
CARBIDE PRECIPITATION ON IMPERFECTIONS IN SUPERALLOY MATRICES V242 1651-1656
INTERGRANULAR STRUCTURE
FATIGUE BEHAVIOR AND CRACK PROPAGATION IN 2024-T3 ALUMINUM ALLOY IN ULTRAHIGH VACUUM AND AIR V242 1713-1718
INTERMETALLIC COMPOUNDS
SEE INTERMETALLICS
INTERMETALLIC PHASES
IDENTIFICATION OF TELLURIUM OR SELENIUM PHASE IN V2VI3 PLUS X ALLOYS BY METALLOGRAPHY V242 145-149.
--DISCUSSION ON-- THE ORDERING TRANSFORMATION IN TITANIUM.. ALUMINUM ALLOYS CONTAINING UP TO 25 AT. PCT ALUMINUM V242 726-730
THE METAL BORIDES IN BORON FIBER CORES., IDENTIFICATION OF MOB4 V242 754-755
DYSPROSIUM-LEAD SYSTEM V242 936-939
THE AGING CHARACTERISTICS OF AN FE-11 AT.PCT. MO ALLOY V242 1001-1007
THE YTTERBIUM-ZINC PHASE DIAGRAM V242 1167-1171
PHASE RELATIONSHIPS IN THE SYSTEM CHROMIUM-SILICON V242 1509-1515
STUDY OF THE MANGANESE-RICH END OF MN-SN SYSTEM V242 1661-1663
THERMODYNAMIC PROPERTIES OF SOLID CR-AL ALLOYS AT 1000 C V242 1685-1688
INTERMETALLIC PHASES, CRYSTAL LATTICES
THE CRYSTAL STRUCTURE OF NICKEL-RICH NIAL AND MARTENSITIC NIAL V242 722-724
INTERMETALLICS, CRYSTAL LATTICES
THE COMPOUND U2RU3 V242 340-341
THE INFLUENCE OF TEMPERATURE ON THE LATTICE PARAMETERS OF THE INTERMETALLIC COMPOUND AG2AL V242 700-702
TERNARY COMPOUNDS WITH THE FE2P-TYPE STRUCTURE V242 2075-2080
INTERMETALLICS, MECHANICAL PROPERTIES
ON ESTIMATING THE STRENGTH OF PARTIALLY ORDERED CRYSTALS V242 1599-1603
DISCUSSION OF PLASTIC DEFORMATION OF SINGLE CRYSTAL-NIAL V242 1753-1754
CREEP RELAXATION AND KINKING OF AL3NI WHISKERS AT ELEVATED TEMPERATURES V242 2281-2286
INTERMETALLICS, PHASE TRANSFORMATIONS
ON THE TRANSFORMATION OF ZRCR2 V242 2241-2242
INTERMETALLICS, REACTIONS /CHEMICAL/

INTERMETALLICS

ENTHALPY OF FORMATION OF CAMG2 V242 2045-2049
INTERMETALLICS, SUPERCONDUCTIVITY
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607
THE SUPERCONDUCTING PERFORMANCE OF DIFFUSION-PROCESSED NB3SN--CB3SN-- DOPED WITH ZRO2 PARTICLES V242 1067-1070
INTERMETALLICS, THERMAL PROPERTIES
THE HEAT OF FORMATION OF THE COMPOUND AUSB2 AND THE PARTIAL ENTHALPIES AND ENTHALPY INTERACTION COEFFICIENTS OF ANTIMONY AND GOLD IN LIQUID TIN V242 1453-1454
LOW-TEMPERATURE HEAT CAPACITY AND HIGH TEMPERATURE ENTHALPY OF CAMG2 V242 2051-2054
ON THE TEMPERATURE DEPENDENCE OF THE HEAT OF FORMATION OF THE COMPOUND AGMG V242 2367-2369
INTERNAL ENERGY
THE STORED ENERGY, ELECTRICAL RESISTIVITY, AND TENSILE PROPERTIES OF COLD-WORKED GOLD V242 880-884
ON ESTIMATING THE STRENGTH OF PARTIALLY ORDERED CRYSTALS V242 1599-1603
INTERNAL FRICTION
EFFECTS OF STATIC COMPRESSIVE LOADING ON THE INTERNAL FRICTION OF LIF V242 967-971
INTERNAL OXIDATION
INTERNAL OXIDATION OF IRON-MANGANESE ALLOYS V242 1035-1042
INTERNAL STRESS
SEE RESIDUAL STRESS
INTERSTITIAL COMPOUNDS
STATISTICAL THERMODYNAMICS OF CARBON IN TERNARY AUSTENITIC IRON-BASE ALLOYS V242 862-869
INTERSTITIAL DEFECTS
EFFECT OF GRAIN SIZE AND TEMPERATURE ON THE STRENGTHENING OF NICKEL AND A NICKEL-COBALT ALLOY BY CARBON V242 1527-1533
INTERSTITIAL SOLUTIONS
ON THE ANOMALOUS BEHAVIOR OF HYDROGEN IN IRON AT LOWER TEMPERATURES V242 244-248
SOME EFFECTS OF OXYGEN ON THE TENSILE DEFORMATION OF POLYCRYSTALLINE ZIRCONIUM V242 661-669
ACTIVITY OF CARBON IN AUSTENITE V242 685-690
--DISCUSSION ON-- A MODEL FOR CONCENTRATED INTERSTITIAL SOLID SOLUTIONS.. ITS APPLICATION TO SOLUTIONS OF CARBON IN GAMMA IRON V242 731-734
SOLUBILITY AND INTERSTITIAL MIGRATION OF OXYGEN IN BCC IRON V242 749-750
THERMODYNAMIC PROPERTIES OF INTERSTITIAL SOLUTIONS OF IRON-BASE ALLOYS V242 1135-1143
IRIDIUM, BINARY SYSTEMS
ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C V242 631-633
IRON, BINARY SYSTEMS
ON THE CONSTITUTION OF THE PSEUDOBINARY SECTION LEAD TELLURIDE-IRON V242 72-75
ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C V242 631-633
A STUDY OF THE THERMODYNAMICS OF CARBON IN AUSTENITE BY AN ELECTROCHEMICAL METHOD V242 1083-1089
THE CHEMICAL ACTIVITIES OF IRON AND CHROMIUM IN BINARY FE-CR ALLOYS V242 1719-1726
IRON, CRYSTAL GROWTH
SECONDARY RECRYSTALLIZATION IN IRON V242 833-843
IRON, CRYSTAL LATTICES
DISLOCATION TANGLE FORMATION AND STRAIN AGING IN CARBURIZED SINGLE CRYSTALS OF 3.25 PCT SILICON-IRON V242 1413-1418
THE EFFECT OF PREFERRED ORIENTATION ON TWINNING IN IRON V242 1831-1836
IRON, DIFFUSION
ON THE ANOMALOUS BEHAVIOR OF HYDROGEN IN IRON AT LOWER TEMPERATURES V242 244-248
OXYGEN DIFFUSIVITY IN BCC IRON STABILIZED BY PHOSPHOROUS V242 698-700
SOLUBILITY AND INTERSTITIAL MIGRATION OF OXYGEN IN BCC IRON V242 749-750
DIFFUSION OF COBALT AND IRON IN LIQUID LEAD MEASURED BY GRAIN BOUNDARY GROOVING V242 2139-2142
IRON, ELECTROCHEMISTRY
AN ELECTROCHEMICAL INVESTIGATION OF COPPER CEMENTATION BY IRON V242 1487-1493
IRON, MECHANICAL PROPERTIES
THE RELATIONSHIP BETWEEN LOWER YIELD STRESS AND GRAIN SIZE IN ARMCO IRON V242 115-119
INFLUENCE OF A 3.28 PCT NICKEL ADDITION ON THE YIELD AND FRACTURE BEHAVIOR OF ALPHA IRON V242 306-314
TRANSIENT AND STEADY-STATE CREEP BEHAVIOR OF NICKEL, ZINC, AND IRON V242 1303-1307
CONSTRAINED DEFORMATION OF SINGLE CRYSTALS V242 1587-1594
THE INFLUENCE OF GRAIN SIZE AND SPECIMEN SIZE ON THE UPPER YIELD STRESS OF IRON V242 1595-1597
HOT COMPRESSION OF ARMCO IRON AND SILICON STEEL V242 1619-1626
DISCUSSION OF THE RELATIONSHIP BETWEEN LOWER YIELD STRESS AND GRAIN SIZE IN ARMCO IRON V242 1762
IRON, PHYSICAL PROPERTIES
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271
IRON, REACTIONS /CHEMICAL/
IRON-SULFUR SYSTEM. PT. 1. GROWTH RATE OF FERROUS SULFIDE ON IRON AND DIFFUSIVITIES OF IRON IN FERROUS SULFIDE V242 1665-1672
IRON-SULFUR SYSTEM. PT. 2. RATE OF REACTION OF HYDROGEN SULFIDE WITH FERROUS SULFIDE V242 1673-1678
ON THE CARBON-CARBON INTERACTION ENERGY IN IRON V242 1845-1847
IRON, REFINING
A COLLISION MODEL FOR THE GROWTH AND SEPARATION OF DEOXIDATION PRODUCTS V242 94-102
IRON, SOLUBILITY
THE RELATIONSHIP BETWEEN FIRST-ORDER INTERACTIONS AND OXIDE SOLUBILITIES IN LIQUID IRON V242 2-4
SOLUBILITY OF SULFUR IN IRON ALLOYS AT 1000 C V242 161-162
SULFUR IN LIQUID IRON ALLOYS.. PT. 1. BINARY FE-S V242 940-946
THE SOLUBILITY OF NITROGEN IN LIQUID IRON AND LIQUID IRON-CARBON ALLOYS V242 1309-1315
THE SOLID SOLUBILITIES OF SILVER, ALUMINUM, CHROMIUM, COPPER, AND IRON IN ZONE-REFINED BERYLLIUM V242 1385-1391
THE EFFECT OF ALLOYING ELEMENTS ON THE SOLUBILITY OF NITROGEN IN LIQUID IRON-CHROMIUM-NICKEL ALLOYS V242 2501-2505
IRON, TERNARY SYSTEMS
ACTIVITY OF CARBON IN LIQUID IRON-CARBON-CHROMIUM SOLUTIONS V242 349-350
IRON, THERMAL PROPERTIES
A MODIFIED HEAT OF FUSION FOR USE IN THE MATHEMATICAL FORMULATION OF SOLIDIFICATION PROCESSES V242 1289-1292
IRON AND STEEL MAKING
SEE STEEL MAKING
IRON BASE ALLOYS
SEE FERROUS ALLOYS
IRON CARBIDES, PHASE TRANSFORMATIONS
THERMALLY INDUCED PHASE TRANSFORMATIONS IN IRON CARBIDES V242 1091-1100
IRON COMPOUNDS
SEE ALSO IRON CARBIDES
IRON OXIDES
IRON COMPOUNDS, DIFFUSION
RATE OF DISSOLUTION OF ALUMINA IN MOLTEN IRON OXIDE V242 776-779
IRON CONSTITUENTS
SEE ALPHA IRON
GAMMA IRON
IRON ORES
SEE HEMATITE
MAGNETITE
PYRITE
IRON OXIDES
DISSOLUTION OF CALCINED FERRIC OXIDES V242 1025-1034
IRON OXIDES, CRYSTAL LATTICES
CHROMIUM SOLUBILITY IN WUSTITE AT 1000 C CHANGES IN OXYGEN ACTIVITY AND LATTICE PARAMETER V242 1259-1265
IRON OXIDES, TERNARY SYSTEMS
SOLID-LIQUID EQUILIBRIA IN THE SYSTEM CAO-FEO-MNO IN CONTACT WITH METALLIC IRON V242 2389-2392

IRON POWDER
SEE IRON
IRRADIATION
STABILIZED CAVITIES IN IRRADIATED AUSTENITIC STAINLESS STEEL V242 2010-2011
ISOTOPES
SEE RADIOISOTOPES

JOGS /DISLOCATIONS/
SEE DISLOCATION JOGS
JUNCTIONS /ELECTRICAL/
SEE SEMICONDUCTOR JUNCTIONS

KANIGEN COATINGS
SEE NICKEL
KILLED STEELS, CRYSTAL GROWTH
RECRYSTALLIZATION AND TEXTURE DEVELOPMENT IN A LOW-CARBON, ALUMINUM-KILLED STEEL V242 1149-1160
KINETICS
SEE ALSO REACTION KINETICS
KINETICS OF AUSTENITE FORMATION FROM A SPHEROIDIZED FERRITE-CARBIDE AGGREGATE V242 206-214
KINETICS OF THE THERMAL DECOMPOSITION OF TUNGSTEN HEXACARBONYL V242 995-1000
KNOOP HARDNESS NUMBER, ANISOTROPY
A STEREOGRAPHIC REPRESENTATION OF KNOOP HARDNESS ANISOTROPY V242 809-814
KNOOP HARDNESS TESTS
FURTHER OBSERVATIONS ON THE INDENTATION OF GERMANIUM AT ROOM TEMPERATURE V242 1479-1481
KNUDSEN FLOW
VAPOR PRESSURE OF SILVER OVER TERNARY LIQUID CU-AG-AU ALLOYS V242 225-231
KNUDSEN GAGES
THE CHEMICAL ACTIVITIES OF IRON AND CHROMIUM IN BINARY FE-CR ALLOYS V242 1719-1726

LADLES
THE EFFECT OF SLAG THICKNESS ON HEAT LOSS FROM LADLES HOLDING MOLTEN STEEL V242 961-965
LAMELLAR STRUCTURE
THE INFLUENCE OF STRUCTURE ON THE FLOW STRESS-STRAIN RATE BEHAVIOR OF AN-AL ALLOYS V242 825-832
THEORY OF THE LAMELLAR DENDRITIC TRANSITION IN EUTECTIC ALLOYS V242 1613-1618
NUCLEATION AND GROWTH OF THE PB-SN EUTECTIC V242 1627-1633
THE STRUCTURE OF THE ZN-MG2ZN11 EUTECTIC V242 1891-1895
PEARLITE MORPHOLOGY IN THREE LOW-CARBON STEELS V242 2217-2220
LAMINA
SEE LAMINATES
LAMINATES, DIFFUSION
BOND DEGRADATION MECHANISMS IN THE 75 PCT CU-25 PCT NI/CU/75 PCT CU-25 PCT NI COINAGE COMPOSITE V242 295-300
LAMINATIONS
SEE LAMINATES
LANTHANUM, BINARY SYSTEMS
HEATS OF SOLUTION AND HEATS OF COMPOUND FORMATION IN THE LANTHANUM-TIN SYSTEMS V242 2013-2014
LANTHANUM, PHASE TRANSFORMATIONS
STUDY OF THE BETA TO ALPHA TRANSFORMATION IN LANTHANUM V242 579-587
LATENT HEAT
SEE HEAT OF FUSION
HEAT OF VAPORIZATION
LATENT HEAT OF FUSION
SEE HEAT OF FUSION
LATTICE CONSTANT
SEE LATTICE PARAMETERS
LATTICE DEFECTS
SEE CRYSTAL DEFECTS
LATTICE PARAMETERS
ON THE SOLID SOLUTIONS OF TIN TELLURIDE AND LEAD TELLURIDE V242 371-373
ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C V242 631-633
SOLUBILITY AND PERMEABILITY OF SULFUR IN ALPHA IRON V242 1049-1056
INTERNAL DEFORMATION AND FRACTURE OF SECOND-ORDER --1011— - --1012-- TWINS IN MAGNESIUM V242 1127-1133
LATTICE PARAMETER AND THERMAL EXPANSION COEFFICIENT OF MOLYBDENUM BETWEEN 15 AND 65 C V242 1185-1186
TWIN BOUNDARIES IN ALUMINUM V242 1188-1190
CHROMIUM SOLUBILITY IN WUSTITE AT 1000 C CHANGES IN OXYGEN ACTIVITY AND LATTICE PARAMETER V242 1259-1265
STRESS-INDUCED MARTENSITE IN SINGLE CRYSTALS OF CU-ZN BETA PHASE ALLOYS V242 1267-1274
CELLULAR PRECIPITATION IN FE-ZN ALLOYS V242 1359-1367
MORPHOLOGICAL STUDY OF THE AGING OF A ZN-1 PCT CU ALLOY V242 1381-1384
DEPENDENCE OF TEXTURE ON PROCESSING CONDITIONS IN EXTRUDED ALUMINUM WIRES V242 1461
COMPUTER PROGRAM FOR CALCULATING INTERPLANAR ANGLES AND INDEXING BACK-REFLECTION LAUE FILMS OF HEXAGONAL CRYSTALS V242 1468-1469
TEXTURE DEVELOPMENT IN --110— --112-- CRYSTALS OF CU-4 PCT AL AT HIGH DEFORMATIONS V242 1476-1478
VACUUM DECANTING OF BISMUTH ALLOYS V242 1517-1521
CONSTRAINED DEFORMATION OF SINGLE CRYSTALS V242 1587-1594
STUDY OF THE MANGANESE-RICH END OF MN-SN SYSTEM V242 1661-1663
PHASE STUDIES IN THE SYSTEM MANGANESE SULFIDE-CADMIUM SULFIDE V242 1969-1972
LATTICE PARAMETERS AS A FUNCTION OF TITANIUM IN AUSTENITIC FE-NI-TI ALLOYS V242 2365-2367
LATTICE PARAMETERS, ALLOYING EFFECTS
DILATION OF NICKEL LATTICE BY DISSOLVED CARBON V242 765-766
LATTICE PARAMETERS, COMPOSITION EFFECTS
PHASE RELATIONS IN THE SYSTEM SNTE-SNSE V242 709-712
LATTICE PARAMETERS, TEMPERATURE EFFECTS
THE INFLUENCE OF TEMPERATURE ON THE LATTICE PARAMETERS OF THE INTERMETALLIC COMPOUND AG2AL V242 700-702
LATTICE VACANCIES
CHROMIUM SOLUBILITY IN WUSTITE AT 1000 C CHANGES IN OXYGEN ACTIVITY AND LATTICE PARAMETER V242 1259-1265
PRECIPITATION IN CYCLICALLY STRAINED AL-4 WT PCT CU--THE FORMATION OF GUINIER-PRESTON ZONES V242 1727-1731
LATTICES
SEE BODY CENTERED CUBIC LATTICE
CRYSTAL LATTICES
CUBIC LATTICE
FACE CENTERED CUBIC LATTICE
HEXAGONAL LATTICE
TETRAGONAL LATTICE
LAUE METHOD
NUMERICAL TECHNIQUE FOR ALIGNING CRYSTALS FROM LAUE PHOTOGRAPHS V242 341-342
LAUE X RAY METHODS
SEE LAUE METHOD
LAYERS
THE FORMATION OF LAYER POROSITY V242 1464-1465
LD CONVERTERS
COMMENTS ON OXYGEN STEELMAKING V242 2377-2388
LD FURNACES
SEE LD CONVERTERS
LD OXYGEN PROCESS
SEE LD CONVERTERS
LEACHING
SEE ACID LEACHING
LEAD /METAL/, ALLOYING ADDITIVE
DEVELOPMENT OF THE FREE-MACHINING, HIGH-STRENGTH, HIGH-CONDUCTIVITY CU-CR-PB AND CU-CR-ZR-PB ALLOYS V242 947-952
LEAD /METAL/, BINARY SYSTEMS
ON THE CONSTITUTION OF THE PSEUDOBINARY SECTION LEAD TELLURIDE-IRON V242 72-75
THE PSEUDOBINARY SECTION OF PBTE AND GOLD V242 150-151
GALVANIC CELL STUDIES USING A MOLTEN OXIDE ELECTROLYTE. PT. 1. THERMODYNAMIC PROPERTIES OF THE LEAD-SILVER SYSTEM V242 183-189
METALLURGICAL AND ELECTRONIC PROPERTIES OF PB1-XSNXTE, PB1-XSNXSE, AND OTHER IV-VI ALLOYS V242 354-365
DYSPROSIUM-LEAD SYSTEM V242 936-939
THE DENDRITE-EUTECTIC TRANSITION IN SN-PB ALLOYS

LEAD /METAL/
V242 1275-1279
NUCLEATION AND GROWTH OF THE PB-SN EUTECTIC
V242 1627-1633
LEAD /METAL/, DIFFUSION
DIFFUSION OF COBALT AND IRON IN LIQUID LEAD MEASURED BY GRAIN BOUNDARY GROOVING
V242 2139-2142
LEAD /METAL/, ENVIRONMENT
CORROSION OF COPPER BY LIQUID LEAD IN AN ISOTHERMAL LOOP V242 1249-1252
LEAD /METAL/, EXTRACTION
THE LEAD SMELTER TODAY V242 552-557
LEAD /METAL/, MECHANICAL PROPERTIES
THE DEFORMATION OF LEAD V242 2111-2120
LEAD /METAL/, PHYSICAL PROPERTIES
THE DENSITIES OF LIQUID TIN, LEAD, AND TIN-LEAD ALLOYS V242 819-822
DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS
V242 1483-1484
LEAD /METAL/, POWDER METALLURGY
A METHOD FOR MEASURING THE PRESSURE DISTRIBUTION IN POWDER COMPACTS V242 740
DEFORMATION THEORY OF HOT PRESSING-YIELD CRITERION
V242 1117-1120
LEAD /METAL/, QUATERNARY SYSTEMS
THE THERMODYNAMIC PROPERTIES OF LIQUID ZINC-TIN-CADMIUM-LEAD SOLUTION V242 558-565
LEAD /METAL/, TERNARY SYSTEMS
THE GOLD-TIN-LEAD ALLOYS--THE GOLD-TIN-LEAD SYSTEM
V242 2257-2261
LEAD BASE ALLOYS, CRYSTAL GROWTH
THEORY OF THE LAMELLAR DENDRITIC TRANSITION IN EUTECTIC ALLOYS V242 1613-1618
LEAD BASE ALLOYS, MICROSTRUCTURE
THE VARIATION OF INGOT STRUCTURE WITH COMPOSITION
V242 153-154
LEAD BASE ALLOYS, PHYSICAL PROPERTIES
THE DENSITIES OF LIQUID TIN, LEAD, AND TIN-LEAD ALLOYS V242 819-822
THE DENSITIES OF SOME LIQUID LEAD-ANTIMONY AND LEAD-ANTIMONY-TIN ALLOYS V242 859-862
LEAD BASE ALLOYS, TRANSPORT PROPERTIES
EVIDENCE FOR A CORRELATION BETWEEN ELECTROMIGRATION AND ELECTRICAL RESISTIVITY V242 1771-1774
LEAD COMPOUNDS, BINARY SYSTEMS
ON THE SOLID SOLUTIONS OF TIN TELLURIDE AND LEAD TELLURIDE V242 371-373
LEAD COMPOUNDS, CRYSTAL GROWTH
CRYSTAL GROWTH, ANNEALING, AND DIFFUSION OF LEAD-TIN CHALCOGENIDES V242 374-383
LEAD COMPOUNDS, ELECTROCHEMISTRY
CHANGE OF CHEMICAL POTENTIAL OF OXYGEN IN LIQUID METALS AND LIQUID OXIDE PHASES
V242 1757-1759
LEAD COMPOUNDS, MECHANICAL PROPERTIES
ACTIVATION ENERGIES FOR HIGH-TEMPERATURE STEADY-STATE CREEP IN LEAD SULFIDE--II
V242 1456-1457
LEAD COMPOUNDS, SINGLE CRYSTALS
GROWTH AND CHARACTERIZATION OF SINGLE CRYSTALS OF PBTE-SNTE V242 366-371
LEAD COMPOUNDS, SOLUBILITY
ON THE CONSTITUTION OF THE SYSTEM COBALT-LEAD TELLURIDE V242 747-749
LEVITATION MELTING
THE SOLUBILITY OF NITROGEN IN LIQUID IRON AND LIQUID IRON-CARBON ALLOYS V242 1309-1315
LINE DEFECTS
SEE DISLOCATIONS
LINZ DONAWITZ PROCESS
SEE LD CONVERTERS
LIQUID METALS
HEAT TRANSFER IN LIQUID METAL IRRIGATED PACKED BEDS COUNTERCURRENT TO GASES V242 1733-1740
LIQUID METALS, ALLOYING ELEMENTS
THE DENSITIES OF SOME LIQUID LEAD-ANTIMONY AND LEAD-ANTIMONY-TIN ALLOYS V242 859-862
LIQUID METALS, DIFFUSION
DIFFUSION IN LIQUID BISMUTH-TIN ALLOYS
V242 768-770
THE KINETICS OF OXYGEN EFFUSION FROM INDUCTION-STIRRED LIQUID SILVER V242 1458-1460
CONVECTION EFFECTS IN THE CAPILLARY RESERVOIR TECHNIQUE FOR MEASURING LIQUID METAL DIFFUSION COEFFICIENTS V242 1937-1942
DIFFUSION OF COBALT AND IRON IN LIQUID LEAD MEASURED BY GRAIN BOUNDARY GROOVING
V242 2139-2142
LIQUID METALS DIFFUSION.. A MODIFIED SHEAR CELL AND MERCURY DIFFUSION MEASUREMENTS
V242 2177-2184
LIQUID METALS, ELECTROCHEMISTRY
CHANGE OF CHEMICAL POTENTIAL OF OXYGEN IN LIQUID METALS AND LIQUID OXIDE PHASES
V242 1757-1759
LIQUID METALS, ENVIRONMENT
CORROSION OF COPPER BY LIQUID LEAD IN AN ISOTHERMAL LOOP V242 1249-1252
LIQUID METALS, PHASE TRANSFORMATIONS
UNIDIMENSIONAL SOLIDIFICATION OF A SLAB-VARIABLE SURFACE TEMPERATURE V242 283-291
LIQUID METALS, PHYSICAL PROPERTIES
ACTIVITY OF ALUMINUM IN AL-FE ALLOYS AT 1315 C
V242 253-255
THE VAPOR PRESSURE OF LIQUID SILVER
V242 719-721
THE DENSITIES OF LIQUID TIN, LEAD, AND TIN-LEAD ALLOYS V242 819-822
DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS
V242 1483-1484
THE DENSITIES OF LIQUID CADMIUM AND INDIUM
V242 2237-2238
THE DENSITY AND VISCOSITY OF LIQUID THALLIUM
V242 2309-2311
LIQUID METALS, REACTIONS /CHEMICAL/
THE ACTIVITY OF CR IN LIQUID NI-CR ALLOYS
V242 2007-2008
LIQUID METALS, SOLUBILITY
THE SOLUBILITY OF HYDROGEN IN LIQUID SILVER
V242 343
ACTIVITY OF CARBON IN LIQUID IRON-CARBON-CHROMIUM SOLUTIONS V242 349-350
OXYGEN-ALLOYING ELEMENT INTERACTIONS IN LIQUID SILVER V242 929-935
THE SOLUBILITY OF NITROGEN IN LIQUID IRON AND LIQUID IRON-CARBON ALLOYS V242 1309-1315
SOLUBILITY OF METALS IN LIQUID SODIUM.. THE SYSTEMS SODIUM-SILVER, SODIUM-ZINC, AND SODIUM-CERIUM
V242 2169-2171
THE EQUILIBRIUM BETWEEN ALUMINUM AND NITROGEN IN LIQUID 18 PCT CR-8 PCT NI STAINLESS STEEL
V242 2453-2456
NITROGEN SOLUBILITY IN LIQUID FE-CR-NI ALLOYS
V242 2457-2459
THE EFFECT OF ALLOYING ELEMENTS ON THE SOLUBILITY OF NITROGEN IN LIQUID IRON-CHROMIUM-NICKEL ALLOYS
V242 2501-2505
LIQUID METALS, THERMAL PROPERTIES
THE EFFECT OF SLAG THICKNESS ON HEAT LOSS FROM LADLES HOLDING MOLTEN STEEL V242 961-965
LIQUID METALS, TRANSPORT PROPERTIES
EVIDENCE FOR A CORRELATION BETWEEN ELECTROMIGRATION AND ELECTRICAL RESISTIVITY V242 1771-1774
LIQUID PHASE DIFFUSION
SEE DIFFUSION
LIQUID PHASES
EPITAXIAL GROWTH OF GASB FROM THE LIQUID PHASE
V242 432-436
LIQUIDUS
THE MAGNESIUM-TITANIUM PHASE DIAGRAM TO 1.0 PCT TITANIUM V242 2069-2073
SOLID-LIQUID EQUILIBRIA IN THE SYSTEM CAO-FEO-MNO IN CONTACT WITH METALLIC IRON
V242 2389-2392
LITHIUM, CRYSTAL LATTICES
CRYSTALLOGRAPHY OF SHOCK COMPRESSION
V242 335-337
LITHIUM, DIFFUSION
GRAIN BOUNDARY PENETRATION OF NIOBIUM --COLUMBIUM-- BY LITHIUM V242 1205-1210
LITHIUM CARBONATE
SEE LITHIUM COMPOUNDS
LITHIUM COMPOUNDS
EFFECTS OF STATIC COMPRESSIVE LOADING ON THE INTERNAL FRICTION OF LIF V242 967-971
LITHIUM CRYOLITE
SEE LITHIUM COMPOUNDS
LIVE LOADS
SEE CYCLIC LOADS
LOAD DISTRIBUTION
SEE LOADS /FORCES/
LOADS /FORCES/
SEE ALSO CYCLIC LOADS
DISPERSED-PARTICLE DEFORMATION IN WC-CO ALLOYS
V242 1181-1182
LONG RANGE ORDER

THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 2. LONG-RANGE ORDER V242 278-283

LOOPS /DISLOCATION/
SEE DISLOCATION LOOPS

LOW ALLOY STEELS
SEE ALSO BORON INTENSIFIED STEELS
SILICON STEELS

LOW ALLOY STEELS, CRYSTAL GROWTH
THE GROWTH OF CEMENTITE PARTICLES IN FERRITE V242 1853-1863

LOW ALLOY STEELS, CRYSTAL LATTICES
PREFERRED ORIENTATION STUDIES OF COLD-DRAWN MARTENSITIC STEEL BARS V242 2359-2362

LOW ALLOY STEELS, HEAT TREATMENT
A TRANSMISSION ELECTRON MICROSCOPIC STUDY OF SOME ION-NITRIDED BINARY IRON ALLOYS AND STEELS V242 2415-2422

LOW ALLOY STEELS, MECHANICAL PROPERTIES
ALLOY AND IMPURITY EFFECTS ON TEMPER BRITTLENESS OF STEEL V242 14-24
THE ELONGATION OF SUPERPLASTIC ALLOYS V242 2221-2227

LOW ALLOY STEELS, STRUCTURAL HARDENING
THE INFLUENCE OF NITROGEN, TITANIUM, AND ZIRCONIUM ON THE BORON HARDENABILITY EFFECT IN CONSTRUCTIONAL ALLOY STEELS V242 1689-1694

LUMINESCENCE
SEE ELECTROLUMINESCENCE
X RAY FLUORESCENCE

MACHINABILITY, ALLOYING EFFECTS
DEVELOPMENT OF THE FREE-MACHINING, HIGH-STRENGTH, HIGH-CONDUCTIVITY CU-CR-PB AND CU-CR-ZR-PB ALLOYS V242 947-952

MACROFRACTOGRAPHY
SEE FRACTOGRAPHY

MACROSTRUCTURE
MACROSEGREGATION. PT. 2 V242 41-49
MACROSEGREGATION. PT. 3 V242 50-55

MAGNESIUM, BINARY SYSTEMS
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER V242 272-277
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 2. LONG-RANGE ORDER V242 278-283
THE MAGNESIUM-TITANIUM PHASE DIAGRAM TO 1.0 PCT TITANIUM V242 2069-2073
PHASE DIAGRAMS AND THERMODYNAMIC PROPERTIES OF THE MG-SI AND MG-GE SYSTEMS V242 2323-2328

MAGNESIUM, CRYSTAL LATTICES
PLANE-STRAIN COMPRESSION OF MAGNESIUM AND MAGNESIUM ALLOY CRYSTALS V242 5-13
INTERNAL DEFORMATION AND FRACTURE OF SECOND-ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 1127-1133
SHEAR ACCOMMODATION KINKING AT SECOND ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 2207-2210

MAGNESIUM, INTERMETALLICS
ENTHALPY OF FORMATION OF CAMG2 V242 2045-2049
LOW-TEMPERATURE HEAT CAPACITY AND HIGH TEMPERATURE ENTHALPY OF CAMG2 V242 2051-2054
ON THE TEMPERATURE DEPENDENCE OF THE HEAT OF FORMATION OF THE COMPOUND AGMG V242 2367-2369

MAGNESIUM, TERNARY SYSTEMS
PREDICTING TERNARY DIFFUSION INTERACTIONS FROM SOLUBILITY RELATIONSHIPS V242 1470-1472

MAGNESIUM BASE ALLOYS, CRYSTAL LATTICES
PLANE-STRAIN COMPRESSION OF MAGNESIUM AND MAGNESIUM ALLOY CRYSTALS V242 5-13

MAGNESIUM BASE ALLOYS, MECHANICAL PROPERTIES
EVIDENCE FOR DIFFUSIONAL CREEP WITH LOW STRAIN RATE SENSITIVITY V242 329-331
THE LOW-TEMPERATURE DEFORMATION MECHANISM OF BCC MG-14 WT PCT LI-1.5 WT PCT AL ALLOY V242 1449-1452
THE USE OF GRAIN STRAIN MEASUREMENTS IN STUDIES OF HIGH-TEMPERATURE CR V242 2479-2484

MAGNESIUM BASE ALLOYS, MICROSTRUCTURE
THE DEFORMATION CHARACTERISTICS OF TEXTURED MAGNESIUM V242 654-660

MAGNETIC DOMAINS
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 1. METALLOGRAPHY V242 2099-2106

MAGNETIC FIELDS
CRITICAL CURRENT OF SUPERCONDUCTING NB --CB---ZR-TI ALLOYS IN HIGH MAGNETIC FIELD V242 1793-1800

MAGNETIC FORCE
SEE MAGNETIC FIELDS

MAGNETIC MATERIALS
SEE MAGNETITE

MAGNETIC PROPERTIES
SEE ANTIFERROMAGNETISM
CURIE TEMPERATURE
FERROMAGNETISM
PARAMAGNETISM

MAGNETISM
SEE FERROMAGNETISM
PARAMAGNETISM

MAGNETITE
REDUCTION KINETICS OF HEMATITE TO MAGNETITE IN HYDROGEN-WATER VAPOR MIXTURES V242 2471-2477

MAGNETITE, REDUCTION /CHEMICAL/
A STUDY OF THE FACTORS WHICH INFLUENCE THE RATE MINIMUM PHENOMENON DURING MAGNETITE REDUCTION V242 1981-1988

MALCOMIZING
SEE NITRIDING

MANGANESE, ALLOYING ELEMENTS
INTERNAL OXIDATION OF IRON-MANGANESE ALLOYS V242 1035-1042
THE EFFECT OF MANGANESE ON THE SECONDARY RECRYSTALLIZATION OF SILICON-IRON V242 1457-1458

MANGANESE, BINARY SYSTEMS
STUDY OF THE MANGANESE-RICH END OF MN-SN SYSTEM V242 1661-1663
A THERMODYNAMIC STUDY OF LIQUID MANGANESE-TIN ALLOYS V242 1709-1711

MANGANESE BASE ALLOYS, MECHANICAL PROPERTIES
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 2. THE EFFECT OF STORAGE AND OF DEFORMATION ON THE DAMPING CAPACITY OF 70/30 MN-CU ALLOY V242 2107-2109

MANGANESE BASE ALLOYS, PHYSICAL PROPERTIES
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 1. METALLOGRAPHY V242 2099-2106

MANGANESE COMPOUNDS, BINARY SYSTEMS
PHASE STUDIES IN THE SYSTEM MANGANESE SULFIDE-CADMIUM SULFIDE V242 1969-1972
THE MNTE-MNS SYSTEM V242 2153-2154

MANGANESE COMPOUNDS, REACTIONS /CHEMICAL/
KINETICS OF THE FORMATION OF MNSO4 FROM MNO2, MN2O3, AND MN3O4 AND ITS DECOMPOSITION TO MN2O3 OR MN3O4 V242 2039-2043

MANGANESE COMPOUNDS, REDUCTION /CHEMICAL/
KINETICS OF MANGANESE OXIDE REDUCTION FROM BASIC SLAGS BY SILICON DISSOLVED IN LIQUID IRON V242 565-575

MANGANESE COMPOUNDS, TERNARY SYSTEMS
SOLID-LIQUID EQUILIBRIA IN THE SYSTEM CAO-FEO-MNO IN CONTACT WITH METALLIC IRON V242 2389-2392

MANGANESE STEELS, MECHANICAL PROPERTIES
THE STRESS-STRAIN RATE BEHAVIOR OF A MANGANESE STEEL IN THE TEMPERATURE RANGE OF THE FERRITE-AUSTENITE TRANSFORMATION V242 1281-1287

MARAGING STEELS, CORROSION
STRESS CORROSION CRACKING OF 18 PCT NI MARAGING STEEL IN ACIDIFIED SODIUM CHLORIDE SOLUTION V242 1943-1953

MARAGING STEELS, FIBER METALLURGY
COMPOSITES CONTAINING AGE-HARDENABLE MARAGING STEEL WIRES V242 2014-2015

MARTENSITE
ON THE MARTENSITIC TRANSFORMATION OF BETA1 CU-ZN AFTER REPEATED THERMAL CYCLING V242 154-157
THE EFFECT OF DEFORMATION ON THE MARTENSITIC TRANSFORMATION OF BETA1 BRASS V242 249-253
-110- TWINNING IN BCT MARTENSITE V242 337-338
ATHERMAL TRANSFORMATIONS IN THE IRON-CHROMIUM SYSTEM V242 673-682
THE CRYSTAL STRUCTURE OF NICKEL-RICH NIAL AND MARTENSITIC NIAL V242 722-724
STRESS-INDUCED MARTENSITE IN SINGLE CRYSTALS OF CU-ZN BETA PHASE ALLOYS V242 1267-1274
MOSSBAUER EFFECT STUDY OF THE CLUSTERING OF CARBON ATOMS DURING THE ROOM-TEMPERATURE AGING OF IRON-CARBON MARTENSITE V242 1419-1430

MARTENSITE

ON THE DYNAMICS OF MARTENSITIC TRANSFORMATION V242 1495-1501
DEFORMATION AND TRANSFORMATION TWINNING MODES IN FE-NI AND FE-NI-C MARTENSITES V242 1555-1558
DEFORMATION TWINNING IN FE-NI AND FE-NI-C MARTENSITES V242 1559-1562
THE MICROPLASTIC RESPONSE OF PARTIALLY TRANSFORMED FE-31NI V242 1741-1749
THE EFFECT OF A STABLE PHASE ON THE MARTENSITIC TRANSFORMATION V242 1754-1757
EXPERIMENTAL SUPPORT FOR HARD MARTENSITE V242 1766-1767
DISCUSSION OF ON THE MECHANISM OF THE MARTENSITE-TO-AUSTENITE REVERSE TRANSFORMATION IN AN FE-NI ALLOY V242 2021-2022
FRACTURE TOUGHNESS AND STRAIN-INDUCED PHASE TRANSFORMATIONS V242 2371-2373

MARTENSITE, MICROSTRUCTURE
ELECTRON MICROSCOPY OF CU-ZN-SI MARTENSITES V242 1849-1851

MASS NUMBER
SEE ATOMIC PROPERTIES

MASS SPECTROMETERS
THE DETERMINATION OF WATER VAPOR IN TOUGH PITCH COPPER WIRE BAR BY AN ALUMINUM REDUCTION TECHNIQUE V242 1009-1011
THE CHEMICAL ACTIVITIES OF IRON AND CHROMIUM IN BINARY FE-CR ALLOYS V242 1719-1726

MASS SPECTROMETRY
SEE MASS SPECTROMETERS

MASS SPECTROSCOPY
SEE MASS SPECTROMETERS

MASS TRANSFER
CORROSION OF COPPER BY LIQUID LEAD IN AN ISOTHERMAL LOOP V242 1249-1252

MATERIALS HANDLING
SEE STORAGE

MATERIALS TESTING
SEE CHEMICAL ANALYSIS

MATHEMATICAL ANALYSIS
SEE ALSO NUMERICAL ANALYSIS
VECTOR ANALYSIS
DIRECT DETERMINATION OF THE MOMENTS OF THE SIZE DISTRIBUTION OF PARTICLES IN AN OPAQUE SAMPLE V242 1373-1380

MATHEMATICAL MACHINES
SEE COMPUTERS
DIGITAL COMPUTERS

MATHEMATICAL MODELS
UNIDIMENSIONAL SOLIDIFICATION OF A SLAB-VARIABLE SURFACE TEMPERATURE V242 283-291
SIMULATION OF TOPOCHEMICAL REDUCTION OF HEMATITE VIA INTERMEDIATE OXIDES IN AN ISOTHERMAL COUNTERCURRENT REACTOR V242 618-625
THERMODYNAMIC PROPERTIES OF INTERSTITIAL SOLUTIONS OF IRON-BASE ALLOYS V242 1135-1143

MATHEMATICS
SEE MATHEMATICAL ANALYSIS
NUMERICAL ANALYSIS
VECTOR ANALYSIS

MECHANICAL POLISHING /METALLURGY/
SEE METALLOGRAPHY

MECHANICAL TESTS
SEE BEND TESTS
COMPRESSION TESTS
CREEP TESTS
FATIGUE TESTS
KNOOP HARDNESS TESTS
TENSION TESTS
TORSION TESTS

MECHANICAL TWINNING
DEVELOPMENT OF ROLLING TEXTURE IN COPPER AND BRASS V242 314-319
DISLOCATION STRUCTURES IN SLIGHTLY STRAINED TUNGSTEN, TUNGSTEN-RHENIUM, AND TUNGSTEN-TANTALUM ALLOYS V242 634-640
SOME EFFECTS OF OXYGEN ON THE TENSILE DEFORMATION OF POLYCRYSTALLINE ZIRCONIUM V242 661-669
TEXTURES IN DEFORMED ZIRCONIUM SINGLE CRYSTALS V242 1105-1110
INTERNAL DEFORMATION AND FRACTURE OF SECOND-ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 1127-1133
NUMERICAL ANALYSIS OF DEFORMATION TWIN BEHAVIOR. PT. 1. LARGE STATIC TWINS V242 1405-1412
DEFORMATION TWINNING IN FE-NI AND FE-NI-C MARTENSITES V242 1559-1562
SHEAR ACCOMMODATION KINKING AT SECOND ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 2207-2210
DOUBLE ACCOMMODATION KINKING AND GROWTH OF --1121-- TWINS IN ZIRCONIUM V242 2211-2215

MECHANICAL TWINNING, STRESS EFFECTS
AN ELECTRON MICROSCOPE INVESTIGATION OF EXPLOSION-BONDED METALS V242 1057-1065

MECHANICS
SEE FLUID MECHANICS
KINETICS

MELTING
SEE ALSO LEVITATION MELTING
THE CAF2-CAC2 SYSTEM, AND ITS RELATION TO ELECTROSLAG REMELTING PRACTICE V242 2507-2511

MERCURY /METAL/, BINARY SYSTEMS
THERMODYNAMICS OF BINARY METALLIC SOLUTIONS. PT. 2 V242 1997-2005

MERCURY /METAL/, DIFFUSION
CONVECTION EFFECTS IN THE CAPILLARY RESERVOIR TECHNIQUE FOR MEASURING LIQUID METAL DIFFUSION COEFFICIENTS V242 1937-1942
LIQUID METALS DIFFUSION.. A MODIFIED SHEAR CELL AND MERCURY DIFFUSION MEASUREMENTS V242 2177-2184

MERCURY /METAL/, THERMAL PROPERTIES
HEAT TRANSFER IN LIQUID METAL IRRIGATED PACKED BEDS COUNTERCURRENT TO GASES V242 1733-1740

MERCURY /METAL/, TRANSPORT PROPERTIES
ELECTROTRANSPORT AND RESISTIVITY IN DILUTE SOLUTIONS OF CADMIUM, MERCURY, AND TIN IN MOLTEN SODIUM V242 1335-1341

MERCURY COMPOUNDS, SINGLE CRYSTALS
SOLUTION GROWTH OF --ZN,HG--TE AND GA--P,AS-- CRYSTALS V242 436-441

METAL CARBIDES
SEE IRON CARBIDES
TUNGSTEN CARBIDE
URANIUM CARBIDE

METAL CERAMICS
SEE CERMETS

METAL COATINGS
SEE CLAD METALS

METAL DRAWING
SEE COLD DRAWING

METAL FIBERS
SEE WHISKERS

METAL FOILS, PHYSICAL PROPERTIES
THERMAL CONDUCTIVITY AND ELECTRICAL RESISTIVITY OF BERYLLIUM COPPER FOIL V242 876-880

METAL POWDERS, SUPERCONDUCTIVITY
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607

METAL ROLLING
SEE COLD ROLLING
HOT ROLLING

METALLIC COMPOUNDS
SEE MERCURY COMPOUNDS

METALLIFEROUS MINERALS
SEE HEMATITE
MAGNETITE
PYRITE

METALLOGRAPHIC STRUCTURES
SEE MICROSTRUCTURE

METALLOGRAPHY
SEE ALSO ETCH PITTING
IDENTIFICATION OF TELLURIUM OR SELENIUM PHASE IN V2VI3 PLUS X ALLOYS BY METALLOGRAPHY V242 145-149
METALLOGRAPHIC ANALYSIS OF GETTERED SILICON V242 484-489
MORPHOLOGICAL STUDY OF THE AGING OF A ZN-1 PCT CU ALLOY V242 1381-1384
FURTHER OBSERVATIONS ON THE INDENTATION OF GERMANIUM AT ROOM TEMPERATURE V242 1479-1481

METALLOID ALLOYS
SEE BORON INTENSIFIED STEELS

METALLOID COMPOUNDS
SEE BORON COMPOUNDS
SILICA
SILICON COMPOUNDS
TELLURIUM COMPOUNDS

METALLOIDS
SEE ARSENIC
BORON
SILICON
TELLURIUM

METALLURGICAL PHASES
SEE GAS PHASES /METALLURGICAL/
MICROFRACTOGRAPHY
SEE FRACTOGRAPHY
MICROHARDNESS
A TRANSMISSION ELECTRON MICROSCOPIC STUDY OF SOME ION-NITRIDED BINARY IRON ALLOYS AND STEELS V242 2415-2422
MICROHARDNESS, ANISOTROPY
MICROHARDNESS AND MICROHARDNESS ANISOTROPY OF TUNGSTEN V242 575-578
MICROMINIATURIZATION
PLANAR GUNN OSCILLATOR FOR MICROWAVE INTEGRATED CIRCUITS V242 461-464
MICROPOROSITY
THE DUCTILE-BRITTLE-DUCTILE TRANSITION IN COLUMBIUM-HYDROGEN ALLOYS V242 1327-1333
MICROSCOPY
SEE ELECTRON MICROSCOPY
FIELD ION MICROSCOPY
TRANSMISSION ELECTRON MICROSCOPY
MICROSPHERES
SEE SPHERES
MICROSTRAIN
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES V242 979-986
MICROSTRAIN COMPRESSION OF BERYLLIUM AND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 2. SLIP TRACE ANALYSIS AND TRANSMISSION ELECTRON MICROSCOPY V242 987-994
THE MICROPLASTIC RESPONSE OF PARTIALLY TRANSFORMED FE-31NI V242 1741-1749
MICROSTRUCTURE
SEE ALSO LAMELLAR STRUCTURE
SPHEROIDAL STRUCTURE
THE VARIATION OF INGOT STRUCTURE WITH COMPOSITION V242 153-154
THE SUPERCONDUCTING PERFORMANCE OF DIFFUSION-PROCESSED NB3SN--CB3SN-- DOPED WITH ZRO2 PARTICLES V242 1067-1070
FATIGUE PROPERTIES OF SOME FCC COPPER-BASED SOLID SOLUTIONS V242 1431-1436
THE FORMATION OF THE ALPHA M PHASE BY A MASSIVE TRANSFORMATION IN THE SYSTEMS AG-ZN AND AG-CD V242 1469-1470
ULTRASONIC ATTENUATION STUDIES OF MIXED MICROSTRUCTURES IN STEEL V242 1543-1551
ELECTRON MICROSCOPY OF CU-ZN-SI MARTENSITES V242 1849-1851
THE STRUCTURE OF THE ZN-MG2ZN11 EUTECTIC V242 1891-1895
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 1. METALLOGRAPHY V242 2099-2106
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452
MICROSTRUCTURE, ALLOYING EFFECTS
ELEMENTS OF V GROUP AS MODIFIERS OF ALUMINUM-SILICON ALLOYS V242 2025-2027
MICROSTRUCTURE, IMPURITY EFFECTS
HYDROGEN-INDUCED EXPANSIONS IN TITANIUM-ALUMINUM ALLOYS V242 1901-1913
MINIATURIZATION
SEE MICROMINIATURIZATION
MISCIBILITY
DETERMINATION OF THE MISCIBILITY GAP IN THE AU-NI SYSTEM BY MEANS OF THE MOSSBAUER EFFECT V242 1503-1507
SOLID-LIQUID EQUILIBRIA IN THE SYSTEM CAO-FEO-MNO IN CONTACT WITH METALLIC IRON V242 2389-2392
MIXING
SEE DISSOLVING
MOBILITY /CARRIER/
SEE CARRIER MOBILITY
MODULUS OF ELASTICITY
SEE ALSO SHEAR MODULUS
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452
MODULUS OF ELASTICITY, ALLOYING EFFECTS
MEASUREMENTS OF YOUNGS MODULUS OF POLYCRYSTALLINE NICKEL-TUNGSTEN ALLOYS AT ELEVATED TEMPERATURES V242 2491-2494
MODULUS OF RIGIDITY
SEE SHEAR MODULUS
MODULUS OF SHEAR
SEE SHEAR MODULUS
MODULUS OF TORSION
SEE SHEAR MODULUS
MOLALITY
SEE CONCENTRATION /COMPOSITION/
MOLARITY
SEE CONCENTRATION /COMPOSITION/
MOLDS, COATING
ON THE NATURE OF THE CHILL ZONE IN INGOT SOLIDIFICATION V242 1121-1125
MOLTEN METALS
SEE LIQUID METALS
MOLYBDENUM, ALLOYING ELEMENTS
ORDERING AND THE K STATE IN NICKEL-MOLYBDENUM ALLOYS V242 788-795
MOLYBDENUM, CRYSTAL GROWTH
HETEROEPITAXIAL GROWTH OF MOLYBDENUM THIN FILMS ON INSULATING SUBSTRATES V242 75-78
MOLYBDENUM, CRYSTAL LATTICES
LATTICE PARAMETER AND THERMAL EXPANSION COEFFICIENT OF MOLYBDENUM BETWEEN 15 AND 65 C V242 1185-1186
MOLYBDENUM, FIBER METALLURGY
THE METAL BORIDES IN BORON FIBER CORES., IDENTIFICATION OF MOB4 V242 754-755
MOLYBDENUM, SOLUBILITY
DISCUSSION OF THE SOLUBILITY LIMIT AND DIFFUSIVITY OF CARBON IN MOLYBDENUM V242 1483
MOLYBDENUM, THIN FILMS
MOLYBDENUM THIN-FILM RESISTORS FOR INTEGRATED CIRCUITS V242 497-501
MOLYBDENUM BASE ALLOYS, MECHANICAL PROPERTIES
THE PLASTIC DEFORMATION OF NIOBIUM --COLUMBIUM-- MOLYBDENUM ALLOY SINGLE CRYSTALS V242 120-126
MOMENTS
DIRECT DETERMINATION OF THE MOMENTS OF THE SIZE DISTRIBUTION OF PARTICLES IN AN OPAQUE SAMPLE V242 1373-1380
MONOCRYSTALS
SEE SINGLE CRYSTALS
MOSSBAUER EFFECT
MOSSBAUER EFFECT STUDY OF THE CLUSTERING OF CARBON ATOMS DURING THE ROOM-TEMPERATURE AGING OF IRON-CARBON MARTENSITE V242 1419-1430
DETERMINATION OF THE MISCIBILITY GAP IN THE AU-NI SYSTEM BY MEANS OF THE MOSSBAUER EFFECT V242 1503-1507
ON THE DETECTION OF RETAINED AUSTENITE IN HIGH-CARBON STEELS BY FE57 MOSSBAUER SPECTROSCOPY, WITH APPENDIX V242 1915-1925
MULTIAXIAL STRESS
SEE AXIAL STRESS

NATURAL AGING /METALLURGICAL/
MOSSBAUER EFFECT STUDY OF THE CLUSTERING OF CARBON ATOMS DURING THE ROOM-TEMPERATURE AGING OF IRON-CARBON MARTENSITE V242 1419-1430
NECKING
THE ELONGATION OF SUPERPLASTIC ALLOYS V242 2221-2227
NEUTRON DIFFRACTION
DETERMINATION OF COLD ROLLING AND RECRYSTALLIZATION TEXTURES IN COPPER SHEET BY NEUTRON DIFFRACTION V242 973-977
NEUTRON IRRADIATION
SEE IRRADIATION
NICKEL, ALLOYING ADDITIVE
INFLUENCE OF A 3.28 PCT NICKEL ADDITION ON THE YIELD AND FRACTURE BEHAVIOR OF ALPHA IRON V242 306-314
NICKEL, ALLOYING ELEMENTS
SHOCK-WAVE-INDUCED REVERSE MARTENSITIC TRANSFORMATION IN FE-30 PCT NI V242 2017-2019
ON THE MECHANISM OF THE MARTENSITE-TO-AUSTENITE REVERSE TRANSFORMATION IN AN FE-NI ALLOY V242 2019-2021
THE EFFECT OF ALLOYING ELEMENTS ON THE SOLUBILITY OF NITROGEN IN LIQUID IRON-CHROMIUM-NICKEL ALLOYS V242 2501-2505
NICKEL, BINARY SYSTEMS
DETERMINATION OF THE MISCIBILITY GAP IN THE AU-NI SYSTEM BY MEANS OF THE MOSSBAUER EFFECT V242 1503-1507
NICKEL, CORROSION
GRAIN BOUNDARY PENETRATION AND EMBRITTLEMENT OF NICKEL BICRYSTALS BY BISMUTH V242 1343-1351

NICKEL

NICKEL, CRYSTAL LATTICES
DILATION OF NICKEL LATTICE BY DISSOLVED CARBON V242 765-766
NICKEL, DIFFUSION
BOND DEGRADATION MECHANISMS IN THE 75 PCT CU-25 PCT NI/CU/75 PCT CU-25 PCT NI COINAGE COMPOSITE V242 295-300
A STUDY OF THE EFFECTS OF ULTRASONICS ON DIFFUSION V242 1233-1235
THE NEAR-SURFACE DIFFUSION ANOMALY IN GOLD V242 1963-1967
THE DIFFUSION OF NICKEL DURING NICKEL-INDUCED RECRYSTALLIZATION IN DOPED TUNGSTEN V242 2121-2127
NICKEL, INTERMETALLICS
DISCUSSION OF PLASTIC DEFORMATION OF SINGLE CRYSTAL-NIAL V242 1753-1754
CREEP RELAXATION AND KINKING OF AL3NI WHISKERS AT ELEVATED TEMPERATURES V242 2281-2286
NICKEL, MECHANICAL PROPERTIES
RESISTANCE TO HOT DEFORMATION V242 1193-1203
TRANSIENT AND STEADY-STATE CREEP BEHAVIOR OF NICKEL, ZINC, AND IRON V242 1303-1307
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303
NICKEL, PHYSICAL PROPERTIES
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271
NICKEL, REACTIONS /CHEMICAL/
PASSIVATION REACTIONS OF NICKEL AND COPPER ALLOYS WITH FLUORINE V242 1635-1643
NICKEL, SOLUBILITY
THE SOLUBILITY OF CARBON IN COBALT AND NICKEL V242 2129-2132
NICKEL, STRUCTURAL HARDENING
EFFECT OF GRAIN SIZE AND TEMPERATURE ON THE STRENGTHENING OF NICKEL AND A NICKEL-COBALT ALLOY BY CARBON V242 1527-1533
NICKEL, TERNARY SYSTEMS
CONSTITUTIONAL INVESTIGATIONS ON ALLOYS IN THE CARBON-CHROMIUM NICKEL-SILICON SYSTEM V242 760-761
NICKEL BASE ALLOYS
SEE ALSO INCONEL
NICKEL BASE ALLOYS, CORROSION
NI-AL COATING-BASE METAL INTERACTIONS IN SEVERAL NICKEL-BASE ALLOYS V242 1695-1702
CONTRIBUTION TO THE STUDY OF HOT CORROSION V242 1955-1961
NICKEL BASE ALLOYS, CRYSTAL GROWTH
GRAIN GROWTH AND RECRYSTALLIZATION IN THORIA-DISPERSED NICKEL AND NICHROME V242 640-648
CELLULAR RECRYSTALLIZATION IN A NICKEL-BASE SUPERALLOY V242 1563-1568
AN X-RAY LINE-BROADENING STUDY OF RECOVERY IN MONEL 400 V242 1645-1649
NICKEL BASE ALLOYS, CRYSTAL LATTICES
THE CRYSTAL STRUCTURE OF NICKEL-RICH NIAL AND MARTENSITIC NIAL V242 722-724
CARBIDE PRECIPITATION ON IMPERFECTIONS IN SUPERALLOY MATRICES V242 1651-1656
NICKEL BASE ALLOYS, MECHANICAL PROPERTIES
--DISCUSSION ON-- THE INFLUENCE OF THERMOMECHANICAL TREATMENTS ON THE MICROSTRUCTURE AND TENSILE PROPERTIES OF HASTELLOY X-280 V242 163-164
THE PORTEVIN-LE CHATELIER EFFECT IN NICKEL-COPPER ALLOYS V242 333-335
FRACTURE IN DISPERSION-STRENGTHENED NICKEL-CHROMIUM ALLOYS V242 1657-1660
THE FATIGUE OF THE NICKEL-BASE SUPERALLOY, MAR-M200 IN SINGLE-CRYSTAL AND COLUMNAR-GRAINED FORMS AT ROOM TEMPERATURE V242 1869-1879
COMPOSITES CONTAINING AGE-HARDENABLE MARAGING STEEL WIRES V242 2014-2015
THE EFFECT OF DISPERSED HARD PARTICLES ON THE HARD-STRAIN FATIGUE BEHAVIOR OF NICKEL AT ROOM TEMPERATURE V242 2347-2353
DEFORMATION BEHAVIOR IN THE NEAR-EQUIATOMIC NI-TI ALLOYS V242 2393-2398
MEASUREMENTS OF YOUNGS MODULUS OF POLYCRYSTALLINE NICKEL-TUNGSTEN ALLOYS AT ELEVATED TEMPERATURES V242 2491-2494
NICKEL BASE ALLOYS, MICROSTRUCTURE
RECRYSTALLIZATION OF THORIATED NICKEL ASSOCIATED WITH IMPURITY DIFFUSION V242 750-751
NICKEL BASE ALLOYS, PHASES /STATE OF MATTER/
ORDERING AND THE K STATE IN NICKEL-MOLYBDENUM ALLOYS V242 788-795
SIGMA--ITS OCCURRENCE, EFFECT, AND CONTROL IN NICKEL-BASE SUPERALLOYS V242 2399-2414
NICKEL BASE ALLOYS, POWDER METALLURGY
A METHOD FOR MEASURING THE PRESSURE DISTRIBUTION IN POWDER COMPACTS V242 740
DEFORMATION THEORY OF HOT PRESSING-YIELD CRITERION V242 1117-1120
NICKEL BASE ALLOYS, REACTIONS /CHEMICAL/
THE ACTIVITY OF CR IN LIQUID NI-CR ALLOYS V242 2007-2008
NICKEL BASE ALLOYS, SOLUBILITY
THE SOLUBILITY OF HYDROGEN IN SOLID NI-CU ALLOYS V242 332-333
NICKEL BASE ALLOYS, STRUCTURAL HARDENING
EFFECT OF GRAIN SIZE AND TEMPERATURE ON THE STRENGTHENING OF NICKEL AND A NICKEL-COBALT ALLOY BY CARBON V242 1527-1533
NICKEL COATINGS
SEE NICKEL
NICKEL STEELS, CORROSION
STRESS CORROSION CRACKING OF 18 PCT NI MARAGING STEEL IN ACIDIFIED SODIUM CHLORIDE SOLUTION V242 1943-1953
NIOBIUM, DIFFUSION
GRAIN BOUNDARY PENETRATION OF NIOBIUM --COLUMBIUM-- BY LITHIUM V242 1205-1210
NIOBIUM, INTERMETALLICS
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607
THE SUPERCONDUCTING PERFORMANCE OF DIFFUSION-PROCESSED NB3SN--CB3SN-- DOPED WITH ZRO2 PARTICLES V242 1067-1070
NIOBIUM, MECHANICAL PROPERTIES
CREEP CORRELATIONS FOR BCC REFRACTORY METALS V242 345-347
A STEREOGRAPHIC REPRESENTATION OF KNOOP HARDNESS ANISOTROPY V242 809-814
NIOBIUM, METALLOGRAPHY
DISLOCATION STRUCTURES IN NIOBIUM --COLUMBIUM-- SINGLE CRYSTALS OBSERVED BY OPTICAL MICROSCOPY V242 196-205
NIOBIUM, MICROSTRUCTURE
THE DEVELOPMENT OF PREFERRED ORIENTATIONS IN COLD-ROLLED NIOBIUM --COLOMBIUM-- V242 1317-1326
NIOBIUM BASE ALLOYS, MECHANICAL PROPERTIES
THE PLASTIC DEFORMATION OF NIOBIUM --COLUMBIUM-- MOLYBDENUM ALLOY SINGLE CRYSTALS V242 120-126
THE DUCTILE-BRITTLE-DUCTILE TRANSITION IN COLUMBIUM-HYDROGEN ALLOYS V242 1327-1333
NIOBIUM BASE ALLOYS, STRUCTURAL HARDENING
AGING IN NB--CB---TI-O SUPERCONDUCTORS V242 2263-2270
NIOBIUM BASE ALLOYS, SUPERCONDUCTIVITY
CRITICAL CURRENT OF SUPERCONDUCTING NB --CB---ZR-TI ALLOYS IN HIGH MAGNETIC FIELD V242 1793-1800
NITRIDES, MECHANICAL PROPERTIES
COMPRESSIVE CREEP OF POLYCRYSTALLINE URANIUM MONONITRIDE IN NITROGEN V242 1466-1467
NITRIDING
HIGH-TEMPERATURE STABILITY OF EPSILON TIXN V242 343-345
A TRANSMISSION ELECTRON MICROSCOPIC STUDY OF SOME ION-NITRIDED BINARY IRON ALLOYS AND STEELS V242 2415-2422
NITROGEN, DIFFUSION
PERMEABILITY OF TUNGSTEN TO NITROGEN FROM 1800 TO 2600 C V242 626-630
NITROGEN, SOLUBILITY
THE SOLUBILITY OF NITROGEN IN LIQUID IRON AND LIQUID IRON-CARBON ALLOYS V242 1309-1315
THE EQUILIBRIUM BETWEEN ALUMINUM AND NITROGEN IN LIQUID 18 PCT CR-8 PCT NI STAINLESS STEEL V242 2453-2456
NITROGEN SOLUBILITY IN LIQUID FE-CR-NI ALLOYS V242 2457-2459
THE EFFECT OF ALLOYING ELEMENTS ON THE SOLUBILITY OF NITROGEN IN LIQUID IRON-CHROMIUM-NICKEL ALLOYS V242 2501-2505
NOBLE METALS
SEE PRECIOUS METALS
NONFERROUS SMELTING
SEE SMELTING
NONMETALLIC INCLUSIONS

INTERNAL OXIDATION OF IRON-MANGANESE ALLOYS V242 1035-1042
SOME OBSERVATIONS ON THE DUCTILE FRACTURE OF POLYCRYSTALLINE COPPER CONTAINING INCLUSIONS V242 1989-1995

NONMETALLIFEROUS MINERALS
SEE CRYOLITE
GRAPHITE

NONSTOICHIOMETRIC COMPOUNDS, DIFFUSION
OXYGEN DIFFUSION IN HYPOSTOICHIOMETRIC ZIRCONIUM OXIDE IN THE TEMPERATURE RANGE OF 875 TO 1050 C V242 1293-1298

NOTCH BAR IMPACT STRENGTH
SEE IMPACT STRENGTH

NOTCH BRITTLENESS
SEE BRITTLENESS

NOTCH DUCTILITY
SEE DUCTILITY

NOTCH EFFECT
SEE NOTCH SENSITIVITY

NOTCH IMPACT STRENGTH
SEE IMPACT STRENGTH

NOTCH IMPACT VALUE
SEE IMPACT STRENGTH

NOTCH SENSITIVITY
THE CHARPY IMPACT BEHAVIOR OF AL3NI WHISKER-REINFORCED ALUMINUM V242 1237-1247

NOTCHED BAR TENSILE TEST
SEE TENSION TESTS

NOTCHED BEND TEST
SEE BEND TESTS

NOTCHED TENSILE STRENGTH
SEE TENSILE STRENGTH

NUCLEAR BINDING ENERGY
SEE BINDING ENERGY /NUCLEAR/

NUCLEAR FORCES
SEE BINDING ENERGY /NUCLEAR/

NUCLEATION
KINETICS OF AUSTENITE FORMATION FROM A SPHEROIDIZED FERRITE-CARBIDE AGGREGATE V242 206-214
DYNAMIC NUCLEATION OF SUPERCOOLED METALS V242 256-263
THE INFLUENCE OF PLASTIC DEFORMATION ON THE THETA PRIME TO THETA TRANSFORMATION IN AL-4 PCT CU V242 591-596
EFFECT OF LOW-ENERGY ULTRASONIC VIBRATIONS ON DYNAMIC NUCLEATION V242 736-738
THE GROWTH OF M23C6 CARBIDE ON GRAIN BOUNDARIES IN AN AUSTENITIC STAINLESS STEEL V242 814-819
MECHANISM OF REORIENTATION DURING RECRYSTALLIZATION OF POLYCRYSTALLINE TITANIUM V242 1013-1024
ON THE NATURE OF THE CHILL ZONE IN INGOT SOLIDIFICATION V242 1121-1125
NUCLEATION AND GROWTH OF THE PB-SN EUTECTIC V242 1627-1633

NUCLEI /TRANSFORMATION/
SEE NUCLEATION

NUMERICAL ANALYSIS
NUMERICAL TECHNIQUE FOR ALIGNING CRYSTALS FROM LAUE PHOTOGRAPHS V242 341-342

OPACITY
GROWTH OF CUBIC ZINC SULFIDE FROM MOLTEN LEAD CHLORIDE V242 441-443

OPAQUENESS
SEE OPACITY

OPTICAL DENSITY
SEE OPACITY

OPTICAL INSTRUMENTS
SEE DENSITOMETERS

OPTICAL TRANSMITTANCE
SEE OPACITY

ORANGE PEEL
SEE COATINGS

ORDER DISORDER
SEE ALSO LONG RANGE ORDER
SHORT RANGE ORDER
ON THE SOLID SOLUTIONS OF TIN TELLURIDE AND LEAD TELLURIDE V242 371-373
METALLOGRAPHIC ANALYSIS OF GETTERED SILICON V242 484-489
ON ESTIMATING THE STRENGTH OF PARTIALLY ORDERED CRYSTALS V242 1599-1603
THERMODYNAMIC PROPERTIES AND ORDERING IN COAL V242 1801-1807
FE-SI ALLOYS.. ORDERING IN THE RANGE FROM 10 TO 23 AT. PCT SI V242 2287-2294

ORDERING
SEE ORDER DISORDER

ORIENTATION
SEE GRAIN ORIENTATION
PREFERRED ORIENTATION

OSCILLATORS
PLANAR GUNN OSCILLATOR FOR MICROWAVE INTEGRATED CIRCUITS V242 461-464

OVERAGING
--DISCUSSION ON-- THE ORDERING TRANSFORMATION IN TITANIUM.. ALUMINUM ALLOYS CONTAINING UP TO 25 AT. PCT ALUMINUM V242 726-730

OXIDATION
SEE ALSO INTERNAL OXIDATION
METAL REOXIDATION IN ALUMINUM ELECTROLYSIS V242 301-306
SILICA FILMS BY THE OXIDATION OF SILANE V242 532-539
PREPARATION AND PROPERTIES OF SIO2 FILMS DEPOSITED FROM SIH2 AND O2 V242 546-550
THE CATALYZED OXIDATION OF ZINC SULFIDE UNDER ACID PRESSURE LEACHING CONDITIONS V242 1815-1821
KINETICS OF THE FORMATION OF MNSO4 FROM MNO2, MN2O3, AND MN3O4 AND ITS DECOMPOSITION TO MN2O3 OR MN3O4 V242 2039-2043

OXIDATION POTENTIAL
SEE ELECTRODE POTENTIALS

OXIDATION RATE
SEE OXIDATION RESISTANCE

OXIDATION REDUCTION POTENTIAL
SEE ELECTRODE POTENTIALS

OXIDATION RESISTANCE
SYNTHESIS OF OXIDATION RESISTANT METAL DIBORIDE COMPOSITES V242 1077-1082
NI-AL COATING-BASE METAL INTERACTIONS IN SEVERAL NICKEL-BASE ALLOYS V242 1695-1702

OXIDATION RESISTANCE, TEMPERATURE EFFECTS
INTERNAL OXIDATION OF IRON-MANGANESE ALLOYS V242 1035-1042

OXIDE CATHODES
SEE CATHODES
OXIDE COATINGS

OXIDE COATINGS, MICROSTRUCTURE
FORMATION OF JACOBSITE AND PYROXMANGITE ON A 3 PCT SILICON-IRON ALLOY CONTAINING SMALL AMOUNTS OF MANGANESE V242 1759-1761

OXIDES
SEE ALSO ALUMINUM OXIDE
CARBON DIOXIDE
IRON OXIDES
SILICA

OXIDES, COMPOSITE MATERIALS
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607

OXIDES, DIFFUSION
OXYGEN DIFFUSION IN HYPOSTOICHIOMETRIC ZIRCONIUM OXIDE IN THE TEMPERATURE RANGE OF 875 TO 1050 C V242 1293-1298

OXIDES, REACTIONS /CHEMICAL/
ON THE TRANSFORMATION OF CAO TO CAS AT 1400 TO 1650 C V242 1039-1042
KINETICS AND MECHANISM OF SULFATION OF ZINC OXIDE V242 1761
KINETICS OF THE FORMATION OF MNSO4 FROM MNO2, MN2O3, AND MN3O4 AND ITS DECOMPOSITION TO MN2O3 OR MN3O4 V242 2039-2043

OXIDES, SORPTION
HIGH-TEMPERATURE ABSORPTION OF YVO4 AND YVO4..EU V242 714-716

OXIDIZING
SEE OXIDATION

OXYGEN, ALLOYING ELEMENTS
SOME EFFECTS OF OXYGEN ON THE TENSILE DEFORMATION OF POLYCRYSTALLINE ZIRCONIUM V242 661-669

OXYGEN, BINARY SYSTEMS
THE EFFECTS OF GOLD, PALLADIUM, AND PLATINUM ON THE LIQUID-GAS-SOLID EQUILIBRIUM IN THE AG-O SYSTEM V242 2015-2017

OXYGEN, DIFFUSION
OXYGEN DIFFUSIVITY IN BCC IRON STABILIZED BY PHOSPHOROUS V242 698-700
SOLUBILITY AND INTERSTITIAL MIGRATION OF OXYGEN IN BCC IRON V242 749-750
GRAIN BOUNDARY PENETRATION OF NIOBIUM --COLUMBIUM-- BY LITHIUM V242 1205-1210
OXYGEN DIFFUSION IN HYPOSTOICHIOMETRIC ZIRCONIUM OXIDE IN THE TEMPERATURE RANGE OF 875 TO 1050 C V242 1293-1298

OXYGEN

THE KINETICS OF OXYGEN EFFUSION FROM INDUCTION-STIRRED LIQUID SILVER V242 1458-1460

OXYGEN, ELECTROCHEMISTRY

CHANGE OF CHEMICAL POTENTIAL OF OXYGEN IN LIQUID METALS AND LIQUID OXIDE PHASES V242 1757-1759

OXYGEN, SOLUBILITY

THE RELATIONSHIP BETWEEN FIRST-ORDER INTERACTIONS AND OXIDE SOLUBILITIES IN LIQUID IRON V242 2-4

THE SOLUBILITY OF OXYGEN IN LIQUID SILVER-GOLD, SILVER-PLATINUM, AND SILVER-PALLADIUM ALLOYS V242 869-875

OXYGEN-ALLOYING ELEMENT INTERACTIONS IN LIQUID SILVER V242 929-935

OXYGEN, TRACE ELEMENTS

THE PLASTIC DEFORMATION OF ZIRCONIUM-OXYGEN ALLOY SINGLE CRYSTALS IN THE RANGE 77 TO 950 K V242 1881-1890

OXYGEN BLOWN CONVERTERS

SEE LD CONVERTERS

OXYGEN STEEL MAKING

SEE LD CONVERTERS

PACKING /CRYSTAL DENSITY/

SEE CRYSTAL STRUCTURE

PACKING FRACTION

SEE BINDING ENERGY /NUCLEAR/

PACKINGS /COLUMN/

SEE COLUMN PACKINGS

PAIR PRODUCTION

INTERACTIONS OF CARBON IN SOLID SOLUTION IN COBALT V242 1211-1216

PALLADIUM, ALLOYING ELEMENTS

THE SOLUBILITY OF OXYGEN IN LIQUID SILVER-GOLD, SILVER-PLATINUM, AND SILVER-PALLADIUM ALLOYS V242 869-875

OXYGEN-ALLOYING ELEMENT INTERACTIONS IN LIQUID SILVER V242 929-935

PALLADIUM, BINARY SYSTEMS

THERMODYNAMIC PROPERTIES OF SOLID RHODIUM-PALLADIUM ALLOYS V242 1523-1526

PALLADIUM, DIFFUSION

DISCUSSION OF DIFFUSION OF PALLADIUM, SILVER, CADMIUM, INDIUM, AND TIN IN ALUMINUM V242 956

PARAMAGNETISM

THE EFFECT OF FERROMAGNETISM UPON CREEP DEFORMATION OF ALPHA IRON AND ITS SOLID-SOLUTION ALLOYS V242 1703-1708

PARTICLE SIZE DISTRIBUTION

DIRECT DETERMINATION OF THE MOMENTS OF THE SIZE DISTRIBUTION OF PARTICLES IN AN OPAQUE SAMPLE V242 1373-1380

PASSIVITY

PASSIVATION REACTIONS OF NICKEL AND COPPER ALLOYS WITH FLUORINE V242 1635-1643

PEARLITE

PEARLITE MORPHOLOGY IN THREE LOW-CARBON STEELS V242 2217-2220

PELLETS, REDUCTION /CHEMICAL/

A STUDY OF THE FACTORS WHICH INFLUENCE THE RATE MINIMUM PHENOMENON DURING MAGNETITE REDUCTION V242 1981-1988

PENETRATION

GRAIN BOUNDARY PENETRATION AND EMBRITTLEMENT OF NICKEL BICRYSTALS BY BISMUTH V242 1343-1351

PENETRATION, ANISOTROPY

GRAIN BOUNDARY PENETRATION OF NIOBIUM --COLUMBIUM-- BY LITHIUM V242 1205-1210

PERFORATIONS

SEE HOLES

PERITECTIC REACTIONS

DYSPROSIUM-LEAD SYSTEM V242 936-939

PERMANENT MOLD CASTING

THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390 V242 1217-1222

PERMEABILITY

SOLUBILITY AND PERMEABILITY OF SULFUR IN ALPHA IRON V242 1049-1056

PERMEABILITY, PRESSURE EFFECTS

PERMEABILITY OF TUNGSTEN TO NITROGEN FROM 1800 TO 2600 C V242 626-630

PERMEATION

SEE PENETRATION

PHASE /STATE OF MATTER/

SEE PHASES /STATE OF MATTER/

PHASE BOUNDARY

--DISCUSSION ON-- THE ORDERING TRANSFORMATION IN TITANIUM.. ALUMINUM ALLOYS CONTAINING UP TO 25 AT. PCT ALUMINUM V242 726-730

INTERDIFFUSION COEFFICIENTS IN ALPHA CU-SI BY A MOVING INTERPHASE BOUNDARY METHOD V242 738-740

OPTIMUM TEMPERATURE FOR DECARBURIZING LOW-CARBON STEELS IN WET HYDROGEN V242 763-765

THERMODYNAMICS OF THE ERBIUM-DEUTERIUM SYSTEM V242 1161-1165

DETERMINATION OF THE MISCIBILITY GAP IN THE AU-NI SYSTEM BY MEANS OF THE MOSSBAUER EFFECT V242 1503-1507

EXPERIMENTAL STUDY OF SOLIDIFICATION OF ALUMINUM-COPPER ALLOYS V242 1569-1574

THEORY OF THE LAMELLAR DENDRITIC TRANSITION IN EUTECTIC ALLOYS V242 1613-1618

PHASE DECOMPOSITION

SEE ALSO EUTECTIC DECOMPOSITION

SPINOIDAL DECOMPOSITION V242 166-180

CHROMIUM SOLUBILITY IN WUSTITE AT 1000 C CHANGES IN OXYGEN ACTIVITY AND LATTICE PARAMETER V242 1259-1265

THERMODYNAMICS OF THE THERMAL DECOMPOSITION OF 1050 K ALUMINUM SULFATE.. THE AL-S-O SYSTEM FROM 850 TO V242 1299-1302

PRECIPITATION IN CYCLICALLY STRAINED AL-4 WT PCT CU--THE FORMATION OF GUINIER-PRESTON ZONES V242 1727-1731

SHOCK-WAVE-INDUCED REVERSE MARTENSITIC TRANSFORMATION IN FE-30 PCT NI V242 2017-2019

PHASE DIAGRAM REACTIONS

SEE ALSO EUTECTIC DECOMPOSITION
EUTECTIC REACTIONS
PERITECTIC REACTIONS
PHASE DECOMPOSITION

SPINOIDAL DECOMPOSITION V242 166-180

KINETICS OF AUSTENITE FORMATION FROM A SPHEROIDIZED FERRITE-CARBIDE AGGREGATE V242 206-214

MASSIVE AND MARTENSITIC TRANSFORMATION IN AN AG-AL ALLOY V242 1182-1184

THE MNTE-MNS SYSTEM V242 2153-2154

THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236

PHASE DIAGRAMS

THE THERMAL STABILITY OF THE BETA PRIME PHASE OCCURRING IN THE AG-ZN AND AG-AU-ZN SYSTEMS V242 31-34

INTERFACE COMPOSITIONS, MOTION, AND LATTICE TRANSFORMATIONS IN MULTIPHASE DIFFUSION COUPLES V242 66-71

ON THE CONSTITUTION OF THE PSEUDOBINARY SECTION LEAD TELLURIDE-IRON V242 72-75

THE PSEUDOBINARY SECTION OF PBTE AND GOLD V242 150-151

THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 2. LONG-RANGE ORDER V242 278-283

METALLURGICAL AND ELECTRONIC PROPERTIES OF PB1-XSNXTE, PB1-XSNXSE, AND OTHER IV-VI ALLOYS V242 354-365

GROWTH AND CHARACTERIZATION OF SINGLE CRYSTALS OF PBTE-SNTE V242 366-371

CRYSTAL GROWTH, ANNEALING, AND DIFFUSION OF LEAD-TIN CHALCOGENIDES V242 374-383

REPRODUCIBLE DIFFUSION OF ZINC INTO GAAS.. APPLICATION OF THE TERNARY PHASE DIAGRAM AND THE DIFFUSION AND SOLUBILITY ANALYSES V242 406-412

FORMATION OF PHOSPHOSILICATE GLASS FILMS ON SILICON DIOXIDE V242 539-545

METASTABLE SIMPLE CUBIC PHASES BASED ON ANTIMONY AND BISMUTH V242 597-602

PHASE RELATIONS IN THE SYSTEM SNTE-SNSE V242 709-712

--DISCUSSION ON-- THE ORDERING TRANSFORMATION IN TITANIUM.. ALUMINUM ALLOYS CONTAINING UP TO 25 AT. PCT ALUMINUM V242 726-730

--DISCUSSION ON-- THE ORDERING TRANSFORMATION IN TITANIUM.. ALUMINUM ALLOYS CONTAINING UP TO 25 AT. PCT ALUMINUM V242 742-744

ON THE CONSTITUTION OF THE SYSTEM COBALT-LEAD TELLURIDE V242 747-749

OPTIMUM TEMPERATURE FOR DECARBURIZING LOW-CARBON STEELS IN WET HYDROGEN V242 763-765

SOLID-LIQUID INTERFACE STABILITY DURING

SOLIDIFICATION OF DILUTE TERNARY ALLOYS V242 800-809
THE YTTRIUM-CARBON SYSTEM V242 846-852
DYSPROSIUM-LEAD SYSTEM V242 936-939
REVISION OF THE TITANIUM-TUNGSTEN SYSTEM V242 953-954
THE YTTERBIUM-ZINC PHASE DIAGRAM V242 1167-1171
A STUDY OF THE FREE ENERGIES OF FORMATION OF URANIUM MONOCARBIDE AND URANIUM DICARBIDE V242 1809-1813
PHASE STUDIES IN THE SYSTEM MANGANESE SULFIDE-CADMIUM SULFIDE V242 1969-1972
THE EFFECTS OF GOLD, PALLADIUM, AND PLATINUM ON THE LIQUID-GAS-SOLID EQUILIBRIUM IN THE AG-O SYSTEM V242 2015-2017
THE MAGNESIUM-TITANIUM PHASE DIAGRAM TO 1.0 PCT TITANIUM V242 2069-2073
THE GOLD-TIN-LEAD ALLOYS--THE GOLD-TIN-LEAD SYSTEM V242 2257-2261
PHASE DIAGRAMS AND THERMODYNAMIC PROPERTIES OF THE MG-SI AND MG-GE SYSTEMS V242 2323-2328
COMMENTS ON OXYGEN STEELMAKING V242 2377-2388
THE CAF2-CAC2 SYSTEM, AND ITS RELATION TO ELECTROSLAG REMELTING PRACTICE V242 2507-2511

PHASE STABILITY
HIGH-TEMPERATURE STABILITY OF EPSILON TIXN V242 343-345
THEORY OF THE LAMELLAR DENDRITIC TRANSITION IN EUTECTIC ALLOYS V242 1613-1618
STUDY OF THE MANGANESE-RICH END OF MN-SN SYSTEM V242 1661-1663
THE EFFECT OF A STABLE PHASE ON THE MARTENSITIC TRANSFORMATION V242 1754-1757
SOLID-LIQUID EQUILIBRIA IN THE SYSTEM CAO-FEO-MNO IN CONTACT WITH METALLIC IRON V242 2389-2392

PHASE STRUCTURE
SEE SOLID PHASES

PHASE TRANSFORMATIONS
THE THERMAL STABILITY OF THE BETA PRIME PHASE OCCURRING IN THE AG-ZN AND AG-AU-ZN SYSTEMS V242 31-34
INTERFACE COMPOSITIONS, MOTION, AND LATTICE TRANSFORMATIONS IN MULTIPHASE DIFFUSION COUPLES V242 66-71
ISOTHERMAL TRANSFORMATIONS IN AN FE-7.9CR-1.1C ALLOY V242 79-82
THERMODYNAMICS OF THE COBALT TRANSFORMATION V242 139-144
THE EFFECT OF DEFORMATION ON THE MARTENSITIC TRANSFORMATION OF BETA1 BRASS V242 249-253
STUDY OF THE BETA TO ALPHA TRANSFORMATION IN LANTHANUM V242 579-587
DISCONTINUOUS PRECIPITATION IN CU-1.79 WT PCT BE V242 751-752
THERMALLY INDUCED PHASE TRANSFORMATIONS IN IRON CARBIDES V242 1091-1100
THE STRESS-STRAIN RATE BEHAVIOR OF A MANGANESE STEEL IN THE TEMPERATURE RANGE OF THE FERRITE-AUSTENITE TRANSFORMATION V242 1281-1287
STRUCTURES AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 1. INTERFACIAL STRUCTURES V242 1393-1403
THE FORMATION OF THE ALPHA M PHASE BY A MASSIVE TRANSFORMATION IN THE SYSTEMS AG-ZN AND AG-CD V242 1469-1470
ON THE DYNAMICS OF MARTENSITIC TRANSFORMATION V242 1495-1501
PHASE RELATIONSHIPS IN THE SYSTEM CHROMIUM-SILICON V242 1509-1515
ULTRASONIC ATTENUATION STUDIES OF MIXED MICROSTRUCTURES IN STEEL V242 1543-1551
DEFORMATION AND TRANSFORMATION TWINNING MODES IN FE-NI AND FE-NI-C MARTENSITES V242 1555-1558
ON THE MECHANISM OF THE MARTENSITE-TO-AUSTENITE REVERSE TRANSFORMATION IN AN FE-NI ALLOY V242 2019-2021
DISCUSSION OF ON THE MECHANISM OF THE MARTENSITE-TO-AUSTENITE REVERSE TRANSFORMATION IN AN FE-NI ALLOY V242 2021-2022
ON THE TRANSFORMATION OF ZRCR2 V242 2241-2242
FRACTURE TOUGHNESS AND STRAIN-INDUCED PHASE TRANSFORMATIONS V242 2371-2373
SIGMA--ITS OCCURRENCE, EFFECT, AND CONTROL IN NICKEL-BASE SUPERALLOYS V242 2399-2414
PHASE TRANSFORMATIONS IN TI-MO AND TI-V ALLOYS V242 2461-2469

PHASE TRANSFORMATIONS, COMPOSITION EFFECTS
THE EFFECT OF A STABLE PHASE ON THE MARTENSITIC TRANSFORMATION V242 1754-1757

PHASE TRANSFORMATIONS, COOLING EFFECTS
ATHERMAL TRANSFORMATIONS IN THE IRON-CHROMIUM SYSTEM V242 673-682

PHASE TRANSFORMATIONS, STRESS EFFECTS
THE INFLUENCE OF PLASTIC DEFORMATION ON THE THETA PRIME TO THETA TRANSFORMATION IN AL-4 PCT CU V242 591-596
STRESS-INDUCED MARTENSITE IN SINGLE CRYSTALS OF CU-ZN BETA PHASE ALLOYS V242 1267-1274
STRAIN-INDUCED TRANSFORMATION IN AG-ZN ALLOYS V242 1353-1357
THE MICROPLASTIC RESPONSE OF PARTIALLY TRANSFORMED FE-31NI V242 1741-1749
SHOCK-WAVE-INDUCED REVERSE MARTENSITIC TRANSFORMATION IN FE-30 PCT NI V242 2017-2019

PHASES /STATE OF MATTER/
SEE ALSO ALPHA PHASE
BETA PHASE
CHI PHASE
EPSILON PHASE
GAMMA PRIME PHASE
GAS PHASES /METALLURGICAL/
LIQUID PHASES
SIGMA PHASE
SOLID PHASES
THETA PHASE
THETA PRIME PHASE
THE ERBIUM-HYDROGEN SYSTEM V242 903-907
MASSIVE AND MARTENSITIC TRANSFORMATION IN AN AG-AL ALLOY V242 1182-1184
STRAIN-INDUCED TRANSFORMATION IN AG-ZN ALLOYS V242 1353-1357
THE SOLIDIFICATION OF ELECTROSLAG FLUXES V242 1462-1464
THE FORMATION OF THE ALPHA M PHASE BY A MASSIVE TRANSFORMATION IN THE SYSTEMS AG-ZN AND AG-CD V242 1469-1470
PREDICTING TERNARY DIFFUSION INTERACTIONS FROM SOLUBILITY RELATIONSHIPS V242 1470-1472

PHASES /STATE OF MATTER/, CHEMICAL ANALYSIS
ON THE DETECTION OF RETAINED AUSTENITE IN HIGH-CARBON STEELS BY FE57 MOSSBAUER SPECTROSCOPY, WITH APPENDIX V242 1915-1925

PHOSPHORUS, ALLOYING ADDITIVE
HALL MEASUREMENTS OF ION-IMPLANTED LAYERS IN SILICON V242 1173-1180

PHOSPHORUS COMPOUNDS, BINARY SYSTEMS
FORMATION OF PHOSPHOSILICATE GLASS FILMS ON SILICON DIOXIDE V242 539-545

PHOSPHORUS COMPOUNDS, SEMICONDUCTORS
ELECTROLUMINESCENCE OF VAPOR-GROWN GAAS AND GAAS1-XPX DIODES V242 400-406

PHOSPHORUS COMPOUNDS, SINGLE CRYSTALS
SOLUTION GROWTH OF --ZN,HG--TE AND GA--P,AS-- CRYSTALS V242 436-441

PHOSPHORUS COMPOUNDS, SYNTHESIS
SYNTHESIS AND SOLUTION GROWTH OF ALUMINUM PHOSPHIDE. PT. 1 V242 424-428
SYNTHESIS AND SOLUTION GROWTH OF ALUMINUM PHOSPHIDE. PT. 2 V242 428-432

PHOTO OXIDATION
SEE OXIDATION

PHOTODISSOCIATION
SEE DISSOCIATION

PHOTOLUMINESCENCE
SEE X RAY FLUORESCENCE

PHOTOREDUCTION
SEE REDUCTION /CHEMICAL/

PIEZORESISTANCE
SEE ELECTRICAL RESISTANCE

PIG IRON, REFINING
COMMENTS ON OXYGEN STEELMAKING V242 2377-2388

PINNING /DISLOCATION/
FATIGUE BEHAVIOR OF TITANIUM V242 1223-1230
DISLOCATION TANGLE FORMATION AND STRAIN AGING IN CARBURIZED SINGLE CRYSTALS OF 3.25 PCT SILICON-IRON V242 1413-1418
THE INTERACTION OF DISLOCATIONS MOVING AT VELOCITIES OF 0.5C AND ABOVE.. A COMPUTER SIMULATION V242 2147-2152

PLASTER OF PARIS
SEE CALCIUM COMPOUNDS
SULFATES

PLASTIC DEFORMATION
THE EFFECT OF DEFORMATION ON THE MARTENSITIC TRANSFORMATION OF BETA1 BRASS V242 249-253
RECRYSTALLIZATION IN ALPHA PLUTONIUM V242 331-332
CRYSTALLOGRAPHY OF SHOCK COMPRESSION V242 335-337
THE INFLUENCE OF PLASTIC DEFORMATION ON THE THETA PRIME TO THETA TRANSFORMATION IN AL-4 PCT CU V242 591-596
DEFORMATION MECHANISMS IN TITANIUM AND TITANIUM-ALUMINUM ALLOYS V242 648-653
THE NUCLEATION OF BRITTLE FRACTURE IN SINTERED TUNGSTEN AT LOW TEMPERATURES V242 703-708
STRUCTURAL CHANGES DURING SUPERPLASTIC DEFORMATION IN AL-78 WT PCT ZN ALLOY V242 716-719
A METHOD FOR MEASURING THE PRESSURE DISTRIBUTION IN POWDER COMPACTS V242 740
THE STORED ENERGY, ELECTRICAL RESISTIVITY, AND TENSILE PROPERTIES OF COLD-WORKED GOLD V242 880-884
INTERNAL DEFORMATION AND FRACTURE OF SECOND-ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 1127-1133
DISPERSED-PARTICLE DEFORMATION IN WC-CO ALLOYS V242 1181-1182
TWIN BOUNDARIES IN ALUMINUM V242 1188-1190
STRAIN-INDUCED TRANSFORMATION IN AG-ZN ALLOYS V242 1353-1357
STRUCTURES AND MIGRATION KINETICS OF ALPHA.. THETA PRIME BOUNDARIES IN AL-4 PCT CU. PT. 1. INTERFACIAL STRUCTURES V242 1393-1403
THE LOW-TEMPERATURE DEFORMATION MECHANISM OF BCC MG-14 WT PCT LI-1.5 WT PCT AL ALLOY V242 1449-1452
COMPRESSIVE CREEP OF POLYCRYSTALLINE URANIUM MONONITRIDE IN NITROGEN V242 1466-1467
CONSTRAINED DEFORMATION OF SINGLE CRYSTALS V242 1587-1594
THE MICROPLASTIC RESPONSE OF PARTIALLY TRANSFORMED FE-31NI V242 1741-1749
DISCUSSION OF PLASTIC DEFORMATION OF SINGLE CRYSTAL-NIAL V242 1753-1754
EXPERIMENTAL SUPPORT FOR HARD MARTENSITE V242 1766-1767
GRAIN BOUNDARY SLIDING, MIGRATION, AND DEFORMATION IN HIGH-PURITY ALUMINUM V242 1823-1830
THE EFFECT OF PREFERRED ORIENTATION ON TWINNING IN IRON V242 1831-1836
DEFORMATION OF ALPHA PLUTONIUM V242 1865-1867
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 2. THE EFFECT OF STORAGE AND OF DEFORMATION ON THE DAMPING CAPACITY OF 70/30 MN-CU ALLOY V242 2107-2109
EXPERIMENTAL STUDY OF THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN ALUMINUM CRYSTALS V242 2185-2190
SHEAR ACCOMMODATION KINKING AT SECOND ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 2207-2210
DOUBLE ACCOMMODATION KINKING AND GROWTH OF --1121-- TWINS IN ZIRCONIUM V242 2211-2215
ALUMINUM EXTRUSION AS THERMALLY ACTIVATED PROCESS V242 2271-2280
CREEP RELAXATION AND KINKING OF AL3NI WHISKERS AT ELEVATED TEMPERATURES V242 2281-2286
DEFORMATION BEHAVIOR IN THE NEAR-EQUIATOMIC NI-TI ALLOYS V242 2393-2398
DEFORMATION AND FRACTURE OF BERYLLIUM BICRYSTALS V242 2423-2431

PLASTIC DEFORMATION, ANISOTROPY
THE DEFORMATION CHARACTERISTICS OF TEXTURED MAGNESIUM V242 654-660

PLASTIC DEFORMATION, COMPOSITION EFFECTS
SOME EFFECTS OF OXYGEN ON THE TENSILE DEFORMATION OF POLYCRYSTALLINE ZIRCONIUM V242 661-669

PLASTIC DEFORMATION, IMPURITY EFFECTS
THE PLASTIC DEFORMATION OF ZIRCONIUM-OXYGEN ALLOY SINGLE CRYSTALS IN THE RANGE 77 TO 950 K V242 1881-1890

PLASTIC FLOW
OBSERVATIONS ON THE PLASTICITY OF GERMANIUM V242 338-339
THE LOW-TEMPERATURE DEFORMATION MECHANISM OF BCC MG-14 WT PCT LI-1.5 WT PCT AL ALLOY V242 1449-1452
HOT COMPRESSION OF ARMCO IRON AND SILICON STEEL V242 1619-1626
THE DEFORMATION OF LEAD V242 2111-2120
THE EFFECT OF STRAIN RATE AND TEMPERATURE ON THE FLOW STRESS OF 7075 ALUMINUM V242 2295-2297

PLASTIC STRAIN
SEE PLASTIC DEFORMATION

PLASTIC WORKING
SEE HOT WORKING

PLASTICITY
SEE ALSO SUPERPLASTICITY
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES V242 979-986

PLATING
SEE ALLOY PLATING

PLATINUM, ALLOYING ELEMENTS
THE SOLUBILITY OF OXYGEN IN LIQUID SILVER-GOLD, SILVER-PLATINUM, AND SILVER-PALLADIUM ALLOYS V242 869-875
OXYGEN-ALLOYING ELEMENT INTERACTIONS IN LIQUID SILVER V242 929-935

PLATINUM METALS
SEE IRIDIUM
PALLADIUM
PLATINUM
RHODIUM
RUTHENIUM

PLUTONIUM, CRYSTAL GROWTH
RECRYSTALLIZATION IN ALPHA PLUTONIUM V242 331-332

PLUTONIUM, CRYSTAL LATTICES
DEFORMATION OF ALPHA PLUTONIUM V242 1865-1867

PLUTONIUM, DIFFUSION
SELF-DIFFUSION IN PLUTONIUM EPSILON PHASE --BCC-- V242 1679-1683

PLUTONIUM, MECHANICAL PROPERTIES
SUPERPLASTICITY OF UNALLOYED BETA PLUTONIUM V242 126-132

POINT DEFECTS
SEE ALSO INTERSTITIAL DEFECTS
LATTICE VACANCIES
THE STORED ENERGY, ELECTRICAL RESISTIVITY, AND TENSILE PROPERTIES OF COLD-WORKED GOLD V242 880-884

POLARIZATION
POLARIZATION EFFECTS IN INSULATING FILMS ON SILICON--A REVIEW V242 512-523

POLARIZATION /ELECTRODES/
AN ELECTROCHEMICAL INVESTIGATION OF COPPER CEMENTATION BY IRON V242 1487-1493

POLARIZING
SEE POLARIZATION

POLE FIGURES
ROLLING AND ANNEALING TEXTURES OF LOW-CARBON STEEL SHEETS V242 56-65
TEXTURE DEVELOPMENT IN COPPER AND 70-30 BRASS V242 88-93
THE REPRESENTATION OF THE TEXTURES OF ROLLED COPPER, BRASS, AND ALUMINUM BY BIAXIAL POLE FIGURES V242 105-115
DEVELOPMENT OF ROLLING TEXTURE IN COPPER AND BRASS V242 314-319
THE DEFORMATION CHARACTERISTICS OF TEXTURED MAGNESIUM V242 654-660
COMPUTER-DIRECTED PLOTTING OF X-RAY POLE FIGURES V242 746-747
COMPUTER PLOTTING OF POLE FIGURES USING THE TERMINAL PRINTER AS OUTPUT DEVICE V242 762-763
DETERMINATION OF COLD ROLLING AND RECRYSTALLIZATION TEXTURES IN COPPER SHEET BY NEUTRON DIFFRACTION V242 973-977
TEXTURE DEVELOPMENT IN --110-- --112-- CRYSTALS OF CU-4 PCT AL AT HIGH DEFORMATIONS V242 1476-1478

POLING
SEE DEOXIDIZING

POLISHING /METALLURGY/
SEE METALLOGRAPHY

PORES
SEE POROSITY

POROSITY
SEE ALSO MICROPOROSITY
--DISCUSSION ON-- MACROSEGREGATION.. PT. 1 V242 757-759
THE DETERMINATION OF WATER VAPOR IN TOUGH PITCH COPPER WIRE BAR BY AN ALUMINUM REDUCTION TECHNIQUE V242 1009-1011
THE FORMATION OF LAYER POROSITY

V242 1464-1465
POST IRRADIATION
SEE IRRADIATION
POTENTIAL /ELECTRIC/
SEE ELECTRIC POTENTIAL
POTS /ELECTROLYTIC/
SEE ELECTROLYTIC CELLS
POWDER COMPACTS, ELECTRICAL PROPERTIES
INFLUENCE OF IMPURITIES, SINTERING ATMOSPHERE, PORES AND OBSTACLES ON THE ELECTRICAL CONDUCTIVITY OF SINTERED COPPER V242 2173-2176
POWDER COMPACTS, MECHANICAL PROPERTIES
COMPOSITES CONTAINING AGE-HARDENABLE MARAGING STEEL WIRES V242 2014-2015
POWDER METALLURGY
A METHOD FOR MEASURING THE PRESSURE DISTRIBUTION IN POWDER COMPACTS V242 740
POWDER METALLURGY PARTS, CRYSTAL LATTICES
INTERNAL VOID FORMATION IN POWDER METALLURGY TUNGSTEN V242 2191-2198
POWDERS
SEE METAL POWDERS
PRECIOUS METAL COMPOUNDS
SEE SILVER COMPOUNDS
PRECIOUS METALS
SEE ALSO GOLD
IRIDIUM
PALLADIUM
PLATINUM
RHODIUM
RUTHENIUM
SILVER
PRECIOUS METALS, ALLOYING ADDITIVE
--DISCUSSION ON-- THE EFFECT OF NOBLE METAL ADDITIONS ON THE TOUGHNESS OF IRON-CARBON ALLOYS V242 162-163
PRECIPITATES
RECRYSTALLIZATION AND TEXTURE DEVELOPMENT IN A LOW-CARBON, ALUMINUM-KILLED STEEL V242 1149-1160
MORPHOLOGICAL STUDY OF THE AGING OF A ZN-1 PCT CU ALLOY V242 1381-1384
INDENTIFICATION OF THE STRENGTHENING PHASE IN INCONEL ALLOY 718 V242 1764-1765
PRECIPITATION
SEE INTERGRANULAR PRECIPITATION
PRECIPITATION HARDENING
SEE ALSO NATURAL AGING /METALLURGICAL/
DISCONTINUOUS PRECIPITATION IN CU-1.79 WT PCT BE V242 751-752
THE GROWTH OF M23C6 CARBIDE ON GRAIN BOUNDARIES IN AN AUSTENITIC STAINLESS STEEL V242 814-819
THE AGING CHARACTERISTICS OF AN FE-11 AT.PCT. MO ALLOY V242 1001-1007
MORPHOLOGICAL STUDY OF THE AGING OF A ZN-1 PCT CU ALLOY V242 1381-1384
PRECIPITATION PHENOMENA IN BINARY ZINC-ALUMINUM ALLOYS.. HETEROGENEOUS PRECIPITATION AT DISLOCATIONS V242 1927-1932
AGING IN NB--CB---TI-O SUPERCONDUCTORS V242 2263-2270
PRECIPITATION HARDENING STEELS
SEE MARAGING STEELS
PRECIPITATION HEAT TREATMENT
SEE NATURAL AGING /METALLURGICAL/
OVERAGING
PRECIPITATION HARDENING
PREFERENTIAL ATTACK /CORROSION/
SEE INTERGRANULAR CORROSION
PREFERRED ORIENTATION
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES V242 979-986
MECHANISM OF REORIENTATION DURING RECRYSTALLIZATION OF POLYCRYSTALLINE TITANIUM V242 1013-1024
TEXTURE DEVELOPMENT IN --110-- --112-- CRYSTALS OF CU-4 PCT AL AT HIGH DEFORMATIONS V242 1476-1478
DEFORMATION TWINNING IN FE-NI AND FE-NI-C MARTENSITES V242 1559-1562
NUCLEATION AND GROWTH OF THE PB-SN EUTECTIC V242 1627-1633
THE EFFECT OF PREFERRED ORIENTATION ON TWINNING IN IRON V242 1831-1836
PREFERRED ORIENTATION STUDIES OF COLD-DRAWN MARTENSITIC STEEL BARS V242 2359-2362
PREFERRED ORIENTATION, STRESS EFFECTS
THE DEVELOPMENT OF PREFERRED ORIENTATIONS IN COLD-ROLLED NIOBIUM --COLOMBIUM-- V242 1317-1326
PRESSING
SEE HOT PRESSING
PRESSURE
SEE HYDROSTATIC PRESSURE
VAPOR PRESSURE
PRESSURE GAGES
SEE KNUDSEN GAGES
PRESSURE SINTERING
SEE HOT PRESSING
PRESSURE WELDING
SEE EXPLOSIVE WELDING
PROGRAMS /COMPUTERS/
COMPUTER-DIRECTED PLOTTING OF X-RAY POLE FIGURES V242 746-747
COMPUTER PLOTTING OF POLE FIGURES USING THE TERMINAL PRINTER AS OUTPUT DEVICE V242 762-763
COMPUTER AID IN INDEXING HCP FIELD-ION MICROGRAPHS V242 1186-1187
COMPUTER PROGRAM FOR CALCULATING INTERPLANAR ANGLES AND INDEXING BACK-REFLECTION LAUE FILMS OF HEXAGONAL CRYSTALS V242 1468-1469
PROOF STRENGTH
SEE PROOF STRESS
PROOF STRESS
FATIGUE PROPERTIES OF SOME FCC COPPER-BASED SOLID SOLUTIONS V242 1431-1436
PROPAGATION
SEE CRACK PROPAGATION
PROTECTIVE COATINGS, PHASES /STATE OF MATTER/
NI-AL COATING-BASE METAL INTERACTIONS IN SEVERAL NICKEL-BASE ALLOYS V242 1695-1702
PULLING /CRYSTALS/
SEE CRYSTAL PULLING
PULSE COUNTERS
SEE ELECTRICAL MEASUREMENTS
PYCNOMETRY
THE DENSITIES OF SOME LIQUID LEAD-ANTIMONY AND LEAD-ANTIMONY-TIN ALLOYS V242 859-862
DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS V242 1483-1484
PYRAMID HARDNESS TESTS
SEE KNOOP HARDNESS TESTS
PYRITE, REDUCTION /CHEMICAL/
THERMAL DECOMPOSITION OF PYRITE IN A FLUIDIZED BED V242 896-902
PYROLYSIS
THERMAL DECOMPOSITION OF PYRITE IN A FLUIDIZED BED V242 896-902
KINETICS OF THE THERMAL DECOMPOSITION OF TUNGSTEN HEXACARBONYL V242 995-1000
THERMODYNAMICS OF THE THERMAL DECOMPOSITION OF 1050 K
ALUMINUM SULFATE.. THE AL-S-O SYSTEM FROM 850 TO V242 1299-1302
KINETICS OF THE FORMATION OF MNSO4 FROM MNO2, MN2O3, AND MN3O4 AND ITS DECOMPOSITION TO MN2O3 OR MN3O4 V242 2039-2043

QUARTZ
SPUTTERED SILICON DIOXIDE FOR MULTILAYER INTERCONNECTS V242 523-526
PROCESSING AND EVALUATION OF RF SPUTTERED QUARTZ V242 526-531
QUATERNARY SYSTEMS, PHYSICAL PROPERTIES
THE THERMODYNAMIC PROPERTIES OF LIQUID ZINC-TIN-CADMIUM-LEAD SOLUTION V242 558-565
QUENCH BEND TESTS
SEE BEND TESTS
QUENCHING /COOLING/
ATHERMAL TRANSFORMATIONS IN THE IRON-CHROMIUM SYSTEM V242 673-682
MASSIVE AND MARTENSITIC TRANSFORMATION IN AN AG-AL ALLOY V242 1182-1184
THE TRANSPORT OF SOLID IN A METALLIC MELT V242 1478-1479
QUENCHING STRESSES
SEE RESIDUAL STRESS

RADIATION
SEE THERMAL RADIATION
RADIOACTIVE ELEMENTS
SEE RADIOISOTOPES

RADIOACTIVE ISOTOPES
SEE RADIOISOTOPES
RADIOACTIVE METALS
SEE RADIOISOTOPES
RADIOACTIVE TRACERS
UTILIZATION OF NI66 IN TRACER DIFFUSION STUDIES V242 2027-2029
RADIOCRYSTALLOGRAPHY
SEE CRYSTALLOGRAPHY
RADIOISOTOPES
SELF-DIFFUSION IN PLUTONIUM EPSILON PHASE --BCC-- V242 1679-1683
RAMAN SPECTROSCOPY
SEE SPECTROSCOPY
RANEY NICKEL
SEE NICKEL
RARE EARTH METALS
SEE ALSO CERIUM
DYSPROSIUM
ERBIUM
EUROPIUM
LANTHANUM
YTTERBIUM
INJECTION LUMINESCENCE IN RARE-EARTH-DOPED CDS HETEROJUNCTIONS V242 448-452
RARE METALS
SEE RARE EARTH METALS
RASCHIG RINGS
SEE COLUMN PACKINGS
RATE OF CREEP
TRANSIENT AND STEADY-STATE CREEP BEHAVIOR OF NICKEL, ZINC, AND IRON V242 1303-1307
THE EFFECT OF FERROMAGNETISM UPON CREEP DEFORMATION OF ALPHA IRON AND ITS SOLID-SOLUTION ALLOYS V242 1703-1708
RATE OF CREEP, STRESS EFFECTS
--DISCUSSION ON-- DIFFUSION CREEP IN ZIRCONIUM AND CERTAIN ZIRCONIUM ALLOYS V242 744-746
REACTION KINETICS
KINETICS OF MANGANESE OXIDE REDUCTION FROM BASIC SLAGS BY SILICON DISSOLVED IN LIQUID IRON V242 565-575
SIMULATION OF TOPOCHEMICAL REDUCTION OF HEMATITE VIA INTERMEDIATE OXIDES IN AN ISOTHERMAL COUNTERCURRENT REACTOR V242 618-625
NEAR-EQUILIBRIUM KINETICS OF THE DISSOCIATION OF CUPRIC OXIDE V242 822-825
THE KINETICS OF OXYGEN EFFUSION FROM INDUCTION-STIRRED LIQUID SILVER V242 1458-1460
KINETICS AND MECHANISM OF SULFATION OF ZINC OXIDE V242 1761
KINETICS OF THE FORMATION OF MNSO4 FROM MNO2, MN2O3, AND MN3O4 AND ITS DECOMPOSITION TO MN2O3 OR MN3O4 V242 2039-2043
REDUCTION KINETICS OF HEMATITE TO MAGNETITE IN HYDROGEN-WATER VAPOR MIXTURES V242 2471-2477
REACTIONS /CHEMICAL/
SEE DEOXIDIZING
FLUORINATION
HYDROGENATION
INTERNAL OXIDATION
OXIDATION
PYROLYSIS
SULFATION
REACTIVITY /CHEMICAL/
SEE ACTIVITY /CHEMICAL/
REACTOR VESSELS /CHEMICAL/
SEE CHEMICAL REACTORS
REACTORS
SEE CHEMICAL REACTORS
RECOVERY
--DISCUSSION ON-- THE INFLUENCE OF THERMOMECHANICAL TREATMENTS ON THE MICROSTRUCTURE AND TENSILE PROPERTIES OF HASTELLOY X-280 V242 163-164
RECRYSTALLIZATION AND TEXTURE DEVELOPMENT IN A LOW-CARBON, ALUMINUM-KILLED STEEL V242 1149-1160
RESISTANCE TO HOT DEFORMATION V242 1193-1203
AN X-RAY LINE-BROADENING STUDY OF RECOVERY IN MONEL 400 V242 1645-1649
RECRYSTALLIZATION
SEE CRYSTALLIZATION
RECRYSTALLIZATION /METALLURGICAL/
SEE ALSO SECONDARY RECRYSTALLIZATION
GRAIN GROWTH AND RECRYSTALLIZATION IN THORIA-DISPERSED NICKEL AND NICHROME V242 640-648
DETERMINATION OF COLD ROLLING AND RECRYSTALLIZATION TEXTURES IN COPPER SHEET BY NEUTRON DIFFRACTION V242 973-977
MECHANISM OF REORIENTATION DURING RECRYSTALLIZATION OF POLYCRYSTALLINE TITANIUM V242 1013-1024
RECRYSTALLIZATION AND TEXTURE DEVELOPMENT IN A LOW-CARBON, ALUMINUM-KILLED STEEL V242 1149-1160
CELLULAR RECRYSTALLIZATION IN A NICKEL-BASE SUPERALLOY V242 1563-1568
AN X-RAY LINE-BROADENING STUDY OF RECOVERY IN MONEL 400 V242 1645-1649
THE DIFFUSION OF NICKEL DURING NICKEL-INDUCED RECRYSTALLIZATION IN DOPED TUNGSTEN V242 2121-2127
THE DETERMINATION OF RAPID RECRYSTALLIZATION RATES OF AUSTENITE AT THE TEMPERATURES OF HOT DEFORMATION V242 2305-2308
RECRYSTALLIZATION /METALLURGICAL/, IMPURITY EFFECTS
RECRYSTALLIZATION OF THORIATED NICKEL ASSOCIATED WITH IMPURITY DIFFUSION V242 750-751
NICKEL INDUCED RECRYSTALLIZATION OF DOPED TUNGSTEN V242 1973-1979
RECRYSTALLIZATION /METALLURGICAL/, PRESSURE EFFECTS
RECRYSTALLIZATION IN ALPHA PLUTONIUM V242 331-332
RED HARDNESS
SEE HARDNESS
RED SHORTNESS
SEE BRITTLENESS
REDOX POTENTIAL
SEE ELECTRODE POTENTIALS
REDUCING AGENTS
KINETICS OF MANGANESE OXIDE REDUCTION FROM BASIC SLAGS BY SILICON DISSOLVED IN LIQUID IRON V242 565-575
REDUCTION /CHEMICAL/
SEE ALSO DIRECT REDUCTION
FLUIDIZED BED REDUCTION
SIMULATION OF TOPOCHEMICAL REDUCTION OF HEMATITE VIA INTERMEDIATE OXIDES IN AN ISOTHERMAL COUNTERCURRENT REACTOR V242 618-625
STRUCTURE OF REACTION- EQUALS FORMED ALUMINA-SILICON CERMETS V242 795-799
NEAR-EQUILIBRIUM KINETICS OF THE DISSOCIATION OF CUPRIC OXIDE V242 822-825
THE DETERMINATION OF WATER VAPOR IN TOUGH PITCH COPPER WIRE BAR BY AN ALUMINUM REDUCTION TECHNIQUE V242 1009-1011
REDUCTION KINETICS OF HEMATITE TO MAGNETITE IN HYDROGEN-WATER VAPOR MIXTURES V242 2471-2477
REDUCTION /ELECTROLYTIC/
SEE ALSO HALL HEROULT PROCESS
AN ELECTROCHEMICAL INVESTIGATION OF COPPER CEMENTATION BY IRON V242 1487-1493
REDUCTION /METAL WORKING/
SEE COLD DRAWING
COLD ROLLING
HOT ROLLING
REDUCTION POTENTIAL
SEE ELECTRODE POTENTIALS
REFLECTANCE
HIGH-TEMPERATURE ABSORPTION OF YVO4 AND YVO4..EU V242 714-716
REFRACTORY METALS
SEE ALSO CHROMIUM
MOLYBDENUM
NIOBIUM
RHENIUM
TANTALUM
TUNGSTEN
VANADIUM
REFRACTORY METALS, MECHANICAL PROPERTIES
CREEP CORRELATIONS FOR BCC REFRACTORY METALS V242 345-347
REGENERATORS
SEE BLAST FURNACE STOVES
REINFORCEMENT
THE METAL BORIDES IN BORON FIBER CORES., IDENTIFICATION OF MOB4 V242 754-755
THE CHARPY IMPACT BEHAVIOR OF AL3NI WHISKER-REINFORCED ALUMINUM V242 1237-1247
REINFORCING
SEE REINFORCEMENT
REINFORCING MATERIALS
SEE REINFORCEMENT
RELAXATION
CREEP RELAXATION AND KINKING OF AL3NI WHISKERS AT

ELEVATED TEMPERATURES V242 2281-2286
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303
RELAXATION, IMPURITY EFFECTS
THE PLASTIC DEFORMATION OF ZIRCONIUM-OXYGEN ALLOY SINGLE CRYSTALS IN THE RANGE 77 TO 950 K V242 1881-1890
REMELTING
SEE MELTING
RESIDUAL STRESS
EXPERIMENTAL SUPPORT FOR HARD MARTENSITE V242 1766-1767
RESISTANCE
SEE OXIDATION RESISTANCE
RESISTIVITY
SEE ALSO SUPERCONDUCTIVITY
THE EFFECT OF DEFORMATION ON THE MARTENSITIC TRANSFORMATION OF BETA1 BRASS V242 249-253
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER V242 272-277
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 2. LONG-RANGE ORDER V242 278-283
SILICON-CHROMIUM ELECTRON-BEAM-DEPOSITED RESISTIVE FILMS V242 490-497
ON THE STRUCTURE OF ALUMINUM FILMS V242 502-511
ORDERING AND THE K STATE IN NICKEL-MOLYBDENUM ALLOYS V242 788-795
THERMAL CONDUCTIVITY AND ELECTRICAL RESISTIVITY OF BERYLLIUM COPPER FOIL V242 876-880
THE STORED ENERGY, ELECTRICAL RESISTIVITY, AND TENSILE PROPERTIES OF COLD-WORKED GOLD V242 880-884
ELECTROTRANSPORT AND RESISTIVITY IN DILUTE SOLUTIONS OF CADMIUM, MERCURY, AND TIN IN MOLTEN SODIUM V242 1335-1341
INFLUENCE OF IMPURITIES, SINTERING ATMOSPHERE, PORES AND OBSTACLES ON THE ELECTRICAL CONDUCTIVITY OF SINTERED COPPER V242 2173-2176
THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236
RESISTORS
MOLYBDENUM THIN-FILM RESISTORS FOR INTEGRATED CIRCUITS V242 497-501
RETAINED AUSTENITE
THE MICROPLASTIC RESPONSE OF PARTIALLY TRANSFORMED FE-31NI V242 1741-1749
EXPERIMENTAL SUPPORT FOR HARD MARTENSITE V242 1766-1767
RETAINED AUSTENITE, CHEMICAL ANALYSIS
ON THE DETECTION OF RETAINED AUSTENITE IN HIGH-CARBON STEELS BY FE57 MOSSBAUER SPECTROSCOPY, WITH APPENDIX V242 1915-1925
REVAPORIZATION
SEE VAPORIZING
REVERBERATION
SEE SOUND WAVES
RHENIUM, ALLOYING ELEMENTS
DISLOCATION STRUCTURES IN SLIGHTLY STRAINED TUNGSTEN, TUNGSTEN-RHENIUM, AND TUNGSTEN-TANTALUM ALLOYS V242 634-640
RHENIUM COMPOUNDS
THE FREE ENERGY OF FORMATION OF RES2 V242 2143-2145
RHEOLOGICAL PROPERTIES
SEE VISCOSITY
RHODIUM, BINARY SYSTEMS
ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C V242 631-633
THERMODYNAMIC PROPERTIES OF SOLID RHODIUM-PALLADIUM ALLOYS V242 1523-1526
A CALORIMETRIC STUDY OF THE RHODIUM-TIN SYSTEM V242 1553-1554
ROASTING
DISSOLUTION OF CALCINED FERRIC OXIDES V242 1025-1034
ROLL PIERCING
SEE HOT ROLLING
ROLL PRESSING
SEE ROLLING
ROLLING
SEE ALSO COLD ROLLING
HOT ROLLING
DEVELOPMENT OF ROLLING TEXTURE IN COPPER AND BRASS V242 314-319
TEXTURES IN DEFORMED ZIRCONIUM SINGLE CRYSTALS V242 1105-1110
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 2. THE EFFECT OF STORAGE AND OF DEFORMATION ON THE DAMPING CAPACITY OF 70/30 MN-CU ALLOY V242 2107-2109
ROLLING CONTACT FATIGUE TESTS
SEE FATIGUE TESTS
ROTATING BEAM FATIGUE TESTS
SEE FATIGUE TESTS
ROTATIONAL VIBRATION
SEE VIBRATION
ROUGHING /ROLLING/
SEE HOT ROLLING
RUTHENIUM, ALLOYING ELEMENTS
ENHANCED DUCTILITY IN BINARY CHROMIUM ALLOYS V242 1837-1843
RUTHENIUM, INTERMETALLICS
THE COMPOUND U2RU3 V242 340-341

S N DIAGRAMS
FATIGUE BEHAVIOR OF TITANIUM V242 1223-1230
SAND CASTING
THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390 V242 1217-1222
SAP PROCESS
SEE DISPERSION HARDENING
POWDER METALLURGY
SAPPHIRE, COATING
THE DEPOSITION OF SILICON ON SAPPHIRE IN ULTRAHIGH VACUUM V242 470-479
VACUUM DEPOSITION OF SINGLE-CRYSTALLINE SILICON ON SAPPHIRE V242 479-484
SAPPHIRE, CRYSTAL LATTICES
HETEROEPITAXIAL SILICON-ALUMINUM OXIDE INTERFACE-PT. 3. ADDITIONAL STUDIES OF THE ORIENTATION RELATIONSHIPS OF SINGLE CRYSTAL SILICON ON SAPPHIRE V242 465-469
SAPPHIRE, POWDER METALLURGY
A METHOD FOR MEASURING THE PRESSURE DISTRIBUTION IN POWDER COMPACTS V242 740
DEFORMATION THEORY OF HOT PRESSING-YIELD CRITERION V242 1117-1120
SATURATION /MATERIAL COMPOSITION/
ACTIVITY OF CARBON IN LIQUID IRON-CARBON-CHROMIUM SOLUTIONS V242 349-350
THE SOLUBILITY OF CARBON IN COBALT AND NICKEL V242 2129-2132
SCHOTTKY DEFECT
SEE LATTICE VACANCIES
SCORING
SEE WEAR
SCREW DISLOCATIONS
YIELDING, WORK HARDENING, AND CLEAVAGE IN TANTALUM-RHENIUM ALLOY SINGLE CRYSTALS V242 907-917
NUMERICAL ANALYSIS OF DEFORMATION TWIN BEHAVIOR. PT. 1. LARGE STATIC TWINS V242 1405-1412
EFFECTS OF ELASTIC ANISOTROPY ON DISLOCATIONS IN HCP METALS V242 1575-1586
THE INTERACTION OF DISLOCATIONS MOVING AT VELOCITIES OF 0.5C AND ABOVE.. A COMPUTER SIMULATION V242 2147-2152
SEASON CRACK
SEE STRESS CORROSION CRACKING
SEASON CRACKING
SEE STRESS CORROSION CRACKING
SECONDARY RECRYSTALLIZATION
SECONDARY RECRYSTALLIZATION IN IRON V242 833-843
--111-- --HKL-- SECONDARY RECRYSTALLIZATION IN 3PCT SILICON-IRON V242 2155-2161
SECONDARY RECRYSTALLIZATION, ALLOYING EFFECTS
THE EFFECT OF MANGANESE ON THE SECONDARY RECRYSTALLIZATION OF SILICON-IRON V242 1457-1458
SEEBECK COEFFICIENT
SEE SEEBECK EFFECT
SEEBECK EFFECT
THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236
SEEDING
SEE NUCLEATION
SEGREGATIONS
MACROSEGREGATION. PT. 2 V242 41-49
MACROSEGREGATION. PT. 3 V242 50-55

SEGREGATIONS

--DISCUSSION ON-- MACROSEGREGATION.. PT. 1 V242 757-759
MICROSEGREGATION IN STEEL CASTINGS V242 853-858
SEGREGATION AND CONSTITUTIONAL SUPERCOOLING IN ALLOYS SOLIDIFYING WITH A CELLULAR SOLID-LIQUID INTERFACE V242 2091-2097

SELENIUM, BINARY SYSTEMS
METALLURGICAL AND ELECTRONIC PROPERTIES OF PB1-XSNXTE, PB1-XSNXSE, AND OTHER IV-VI ALLOYS V242 354-365

SELENIUM COMPOUNDS, CRYSTAL GROWTH
CRYSTAL GROWTH, ANNEALING, AND DIFFUSION OF LEAD-TIN CHALCOGENIDES V242 374-383

SELENIUM COMPOUNDS, PHASE TRANSFORMATIONS
PHASE RELATIONS IN THE SYSTEM SNTE-SNSE V242 709-712

SELENIUM COMPOUNDS, PHASES /STATE OF MATTER/
IDENTIFICATION OF TELLURIUM OR SELENIUM PHASE IN V2VI3 PLUS X ALLOYS BY METALLOGRAPHY V242 145-149

SELENIUM COMPOUNDS, SINGLE CRYSTALS
GROWTH OF SINGLE CRYSTALS OF ZNTE AND ZNTE1-XSEX BY TEMPERATURE GRADIEN SOLUTION ZONING V242 444-448

SELF DIFFUSION
SEE DIFFUSION

SEMICONDUCTIVITY
SEE SEMICONDUCTORS

SEMICONDUCTOR DEVICES
POLARIZATION EFFECTS IN INSULATING FILMS ON SILICON--A REVIEW V242 512-523
SPUTTERED SILICON DIOXIDE FOR MULTILAYER INTERCONNECTS V242 523-526
SILICA FILMS BY THE OXIDATION OF SILANE V242 532-539

SEMICONDUCTOR JUNCTIONS
INJECTION LUMINESCENCE IN RARE-EARTH-DOPED CDS HETEROJUNCTIONS V242 448-452

SEMICONDUCTORS, CRYSTAL GROWTH
COMPOUND SEMICONDUCTORS FOR INTEGRATED CIRCUITRY V242 452-461

SEMICONDUCTORS, TRANSPORT PROPERTIES
A SURVEY OF RADIATIVE AND NONRADIATIVE RECOMBINATION MECHANISMS IN THE III-V COMPOUND SEMICONDUCTORS V242 384-400

SEMIKILLED STEELS
SEE KILLED STEELS

SEMIKILLING
SEE DEOXIDIZING

SENSITIVITY
SEE NOTCH SENSITIVITY

SESSILE RINGS
SEE DISLOCATION LOOPS

SHEAR MODULUS
CREEP MECHANISMS IN FE-4 PCT SI ALLOY V242 890-895

SHEAR PROPERTIES
SEE SHEAR MODULUS
SHEAR STRESS

SHEAR STRESS
THE RELATION BETWEEN SUPERPLASTICITY AND GRAIN BOUNDARY SHEAR IN THE ALUMINUM-ZINC EUTECTOID ALLOY V242 25-31
CREEP MECHANISMS IN FE-4 PCT SI ALLOY V242 890-895
NUMERICAL ANALYSIS OF DEFORMATION TWIN BEHAVIOR. PT. 1. LARGE STATIC TWINS V242 1405-1412
ON ESTIMATING THE STRENGTH OF PARTIALLY ORDERED CRYSTALS V242 1599-1603
THE DEFORMATION OF LEAD V242 2111-2120

SHEAR STRESS, IMPURITY EFFECTS
THE PLASTIC DEFORMATION OF ZIRCONIUM-OXYGEN ALLOY SINGLE CRYSTALS IN THE RANGE 77 TO 950 K V242 1881-1890

SHEAR WAVES
SEE SOUND WAVES

SHEARING STRESS
SEE SHEAR STRESS

SHEET /METAL/, CRYSTAL LATTICES
DETERMINATION OF COLD ROLLING AND RECRYSTALLIZATION TEXTURES IN COPPER SHEET BY NEUTRON DIFFRACTION V242 973-977

SHOCK
CRYSTALLOGRAPHY OF SHOCK COMPRESSION V242 335-337

SHOCK WAVES
ON THE DYNAMICS OF MARTENSITIC TRANSFORMATION V242 1495-1501
SHOCK-WAVE-INDUCED REVERSE MARTENSITIC TRANSFORMATION IN FE-30 PCT NI V242 2017-2019

SHORT RANGE ORDER
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER V242 272-277
COMPOSITIONAL EFFECTS ON THE DEFORMATION MODES, ANNEALING TWIN FREQUENCIES, AND STACKING FAULT ENERGIES OF AUSTENITIC STAINLESS STEELS V242 771-776
ORDERING AND THE K STATE IN NICKEL-MOLYBDENUM ALLOYS V242 788-795

SIGMA PHASE
SIGMA--ITS OCCURRENCE, EFFECT, AND CONTROL IN NICKEL-BASE SUPERALLOYS V242 2399-2414

SIGNAL GENERATORS
ON THE DYNAMICS OF MARTENSITIC TRANSFORMATION V242 1495-1501

SILICA
POLARIZATION EFFECTS IN INSULATING FILMS ON SILICON--A REVIEW V242 512-523
SILICA FILMS BY THE OXIDATION OF SILANE V242 532-539

SILICA, BINARY SYSTEMS
FORMATION OF PHOSPHOSILICATE GLASS FILMS ON SILICON DIOXIDE V242 539-545

SILICA, PHYSICAL PROPERTIES
SPUTTERED SILICON DIOXIDE FOR MULTILAYER INTERCONNECTS V242 523-526

SILICA, THIN FILMS
PREPARATION AND PROPERTIES OF SIO2 FILMS DEPOSITED FROM SIH2 AND O2 V242 546-550

SILICATES, REACTIONS /CHEMICAL/
FORMATION OF PHOSPHOSILICATE GLASS FILMS ON SILICON DIOXIDE V242 539-545

SILICIDES, MICROSTRUCTURE
COMPOSITION AND STRUCTURE OF SILICIDE PRECIPITATE IN COMPLEX TITANIUM --6AL-3SN-3ZR-- SILICON ALLOYS V242 1454-1456

SILICON, ALLOYING ELEMENTS
CONSTITUTIONAL INVESTIGATIONS ON ALLOYS IN THE CARBON-CHROMIUM NICKEL-SILICON SYSTEM V242 760-761
THE EFFECT OF MANGANESE ON THE SECONDARY RECRYSTALLIZATION OF SILICON-IRON V242 1457-1458
THE ANNEALING OF HYDROGEN-INDUCED MICROCRACKS IN IRON-3 PCT SILICON V242 1473-1475
FORMATION OF JACOBSITE AND PYROXMANGITE ON A 3 PCT SILICON-IRON ALLOY CONTAINING SMALL AMOUNTS OF MANGANESE V242 1759-1761
--111-- --HKL-- SECONDARY RECRYSTALLIZATION IN 3PCT SILICON-IRON V242 2155-2161
FE-SI ALLOYS.. ORDERING IN THE RANGE FROM 10 TO 23 AT. PCT SI V242 2287-2294

SILICON, BINARY SYSTEMS
PHASE RELATIONSHIPS IN THE SYSTEM CHROMIUM-SILICON V242 1509-1515
PHASE DIAGRAMS AND THERMODYNAMIC PROPERTIES OF THE MG-SI AND MG-GE SYSTEMS V242 2323-2328

SILICON, CRYSTAL LATTICES
HETEROEPITAXIAL SILICON-ALUMINUM OXIDE INTERFACE-PT. 3. ADDITIONAL STUDIES OF THE ORIENTATION RELATIONSHIPS OF SINGLE CRYSTAL SILICON ON SAPPHIRE V242 465-469

SILICON, DIFFUSION
INTERDIFFUSION COEFFICIENTS IN ALPHA CU-SI BY A MOVING INTERPHASE BOUNDARY METHOD V242 738-740

SILICON, METALLOGRAPHY
METALLOGRAPHIC ANALYSIS OF GETTERED SILICON V242 484-489

SILICON, REACTIONS /CHEMICAL/
KINETICS OF MANGANESE OXIDE REDUCTION FROM BASIC SLAGS BY SILICON DISSOLVED IN LIQUID IRON V242 565-575

SILICON, TERNARY SYSTEMS
PREDICTING TERNARY DIFFUSION INTERACTIONS FROM SOLUBILITY RELATIONSHIPS V242 1470-1472

SILICON, THERMAL PROPERTIES
THERMODYNAMIC PROPERTIES OF COPPER AND GOLD IN SILICON AND GERMANIUM V242 2055-2061

SILICON, THIN FILMS
THE DEPOSITION OF SILICON ON SAPPHIRE IN ULTRAHIGH VACUUM V242 470-479
VACUUM DEPOSITION OF SINGLE-CRYSTALLINE SILICON ON SAPPHIRE V242 479-484

SILICON, TRANSPORT PROPERTIES

HALL MEASUREMENTS OF ION-IMPLANTED LAYERS IN SILICON V242 1173-1180
SILICON COMPOUNDS
SEE ALSO SILICA
SILICON COMPOUNDS, DIFFUSION
DIFFUSION IN THE CU3SI PHASE OF THE COPPER-SILICON SYSTEM V242 669-673
SILICON COMPOUNDS, REACTIONS /CHEMICAL/
STRUCTURE OF REACTION- EQUALS FORMED ALUMINA-SILICON CERMETS V242 795-799
SILICON COMPOUNDS, THIN FILMS
SILICON-CHROMIUM ELECTRON-BEAM-DEPOSITED RESISTIVE FILMS V242 490-497
SILICON IRON
SEE SILICON STEELS
SILICON STEELS, CRYSTAL LATTICES
DISLOCATION DENSITY IN SINGLE CRYSTALS OF SILICON-IRON DURING LOW CYCLE FATIGUE V242 956-958
SILICON STEELS, MECHANICAL PROPERTIES
HOT COMPRESSION OF ARMCO IRON AND SILICON STEEL V242 1619-1626
SILVER, BINARY SYSTEMS
GALVANIC CELL STUDIES USING A MOLTEN OXIDE ELECTROLYTE. PT. 1. THERMODYNAMIC PROPERTIES OF THE LEAD-SILVER SYSTEM V242 183-189
THE INFLUENCE OF THE DENSITY OF STATES ON THE THERMODYNAMIC ACTIVITY OF ZINC IN THE EPSILON PHASE OF THE AG-ZN SYSTEM V242 190-195
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER V242 272-277
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 2. LONG-RANGE ORDER V242 278-283
MASSIVE AND MARTENSITIC TRANSFORMATION IN AN AG-AL ALLOY V242 1182-1184
STRAIN-INDUCED TRANSFORMATION IN AG-ZN ALLOYS V242 1353-1357
THE EFFECTS OF GOLD, PALLADIUM, AND PLATINUM ON THE LIQUID-GAS-SOLID EQUILIBRIUM IN THE AG-O SYSTEM V242 2015-2017
SILVER, CRYSTAL LATTICES
THE RELATIVE MAGNITUDES OF THE EXTRINSIC AND INTRINSIC STACKING FAULT ENERGIES V242 103-105
SILVER, DIFFUSION
DISCUSSION OF DIFFUSION OF PALLADIUM, SILVER, CADMIUM, INDIUM, AND TIN IN ALUMINUM V242 956
THE KINETICS OF OXYGEN EFFUSION FROM INDUCTION-STIRRED LIQUID SILVER V242 1458-1460
THE NEAR-SURFACE EFFECT FOR DIFFUSION IN SILVER V242 1897-1900
SILVER, ELECTRICAL PROPERTIES
ELECTRICAL RESISTIVITY OF VAPOR-DEPOSITED SILVER FILMS V242 160-161
SILVER, ELECTROCHEMISTRY
CHANGE OF CHEMICAL POTENTIAL OF OXYGEN IN LIQUID METALS AND LIQUID OXIDE PHASES V242 1757-1759
SILVER, INTERMETALLICS
THE INFLUENCE OF TEMPERATURE ON THE LATTICE PARAMETERS OF THE INTERMETALLIC COMPOUND AG2AL V242 700-702
ON THE TEMPERATURE DEPENDENCE OF THE HEAT OF FORMATION OF THE COMPOUND AGMG V242 2367-2369
SILVER, MECHANICAL PROPERTIES
SOME OBSERVATIONS ON HYDROGEN EMBRITTLEMENT OF SILVER V242 237-244
MODEL FOR THE LOW-TEMPERATURE GRAIN BOUNDARY DAMPING PEAK IN FCC METALS V242 2299-2303
SILVER, MICROSTRUCTURE
X-RAY INVESTIGATIONS ON THE STRUCTURE OF SILVER FILMS EVAPORATED ON CAF2 AND NACL SINGLE-CRYSTAL SUBSTRATES V242 1111-1115
SILVER, PHYSICAL PROPERTIES
THE VAPOR PRESSURE OF LIQUID SILVER V242 719-721
SILVER, SOLUBILITY
THE SOLUBILITY OF HYDROGEN IN LIQUID SILVER V242 343
OXYGEN-ALLOYING ELEMENT INTERACTIONS IN LIQUID SILVER V242 929-935
THE SOLID SOLUBILITIES OF SILVER, ALUMINUM, CHROMIUM, COPPER, AND IRON IN ZONE-REFINED BERYLLIUM V242 1385-1391
SOLUBILITY OF METALS IN LIQUID SODIUM.. THE SYSTEMS SODIUM-SILVER, SODIUM-ZINC, AND SODIUM-CERIUM V242 2169-2171
SILVER, TERNARY SYSTEMS
VAPOR PRESSURE OF SILVER OVER TERNARY LIQUID CU-AG-AU ALLOYS V242 225-231
THERMODYNAMIC ANALYSIS OF DILUTE TERNARY SYSTEMS. PT. 1. THE AG-AU-SN SYSTEM V242 291-295
SILVER, THERMAL PROPERTIES
THERMODYNAMIC MEASUREMENTS USING ATOMIC ABSORPTION V242 151-152
SILVER BASE ALLOYS, CRYSTAL LATTICES
THE RELATIVE MAGNITUDES OF THE EXTRINSIC AND INTRINSIC STACKING FAULT ENERGIES V242 103-105
SILVER BASE ALLOYS, PHASE TRANSFORMATIONS
THE FORMATION OF THE ALPHA M PHASE BY A MASSIVE TRANSFORMATION IN THE SYSTEMS AG-ZN AND AG-CD V242 1469-1470
SILVER BASE ALLOYS, PHASES /STATE OF MATTER/
THE THERMAL STABILITY OF THE BETA PRIME PHASE OCCURRING IN THE AG-ZN AND AG-AU-ZN SYSTEMS V242 31-34
SILVER BASE ALLOYS, PHYSICAL PROPERTIES
VAPOR PRESSURE OF THALLIUM AND ACTIVITY MEASUREMENTS ON LIQUID SILVER-THALLIUM ALLOYS BY THE TORSION EFFUSION METHOD V242 1231-1232
SILVER BASE ALLOYS, SOLUBILITY
THE SOLUBILITY OF OXYGEN IN LIQUID SILVER-GOLD, SILVER-PLATINUM, AND SILVER-PALLADIUM ALLOYS V242 869-875
SILVER COMPOUNDS, DIFFUSION
STRESS-ENHANCED GROWTH OF AG3SB IN SILVER-ANTIMONY COUPLES V242 2343-2346
SINGLE CRYSTALS
HETEROEPITAXIAL SILICON-ALUMINUM OXIDE INTERFACE-PT. 3. ADDITIONAL STUDIES OF THE ORIENTATION RELATIONSHIPS OF SINGLE CRYSTAL SILICON ON SAPPHIRE V242 465-469
EFFECTS OF STATIC COMPRESSIVE LOADING ON THE INTERNAL FRICTION OF LIF V242 967-971
ORIENTATION DEPENDENCE OF DISLOCATION DAMPING AND ELASTIC CONSTANTS IN FE-18CR-NI SINGLE CRYSTALS V242 2363-2364
SINGLE CRYSTALS, CRYSTAL GROWTH
GROWTH AND CHARACTERIZATION OF SINGLE CRYSTALS OF PBTE-SNTE V242 366-371
SOLUTION GROWTH OF --ZN,HG--TE AND GA--P,AS-- CRYSTALS V242 436-441
GROWTH OF SINGLE CRYSTALS OF ZNTE AND ZNTE1-XSEX BY TEMPERATURE GRADIEN SOLUTION ZONING V242 444-448
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES V242 979-986
TEXTURE DEVELOPMENT IN --110-- --112-- CRYSTALS OF CU-4 PCT AL AT HIGH DEFORMATIONS V242 1476-1478
SINGLE CRYSTALS, CRYSTAL LATTICES
DISLOCATION DENSITY IN SINGLE CRYSTALS OF SILICON-IRON DURING LOW CYCLE FATIGUE V242 956-958
COMPILATION OF THE MODES OF ELASTIC WAVE PROPAGATION AND THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN COPPER V242 1071-1076
TEXTURES IN DEFORMED ZIRCONIUM SINGLE CRYSTALS V242 1105-1110
INTERNAL DEFORMATION AND FRACTURE OF SECOND-ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 1127-1133
DISLOCATION TANGLE FORMATION AND STRAIN AGING IN CARBURIZED SINGLE CRYSTALS OF 3.25 PCT SILICON-IRON V242 1413-1418
DISCUSSION OF IMPURITY EFFECTS ON BASAL SLIP IN ZINC SINGLE CRYSTALS V242 2022-2024
EXPERIMENTAL STUDY OF THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN ALUMINUM CRYSTALS V242 2185-2190
OBSERVATIONS OF ETCH-PIT ARRANGEMENTS IN ALPHA-CU/AL SINGLE CRYSTALS FORMED DURING CREEP AND AN ANALYSIS OF SUBBOUNDARY FORMATION V242 2245-2249
SINGLE CRYSTALS, DIFFUSION
A STUDY OF THE EFFECTS OF ULTRASONICS ON DIFFUSION V242 1233-1235
SINGLE CRYSTALS, MECHANICAL PROPERTIES
MICROHARDNESS AND MICROHARDNESS ANISOTROPY OF TUNGSTEN V242 575-578

SINGLE CRYSTALS

YIELDING, WORK HARDENING, AND CLEAVAGE IN TANTALUM-RHENIUM ALLOY SINGLE CRYSTALS V242 907-917
MICROSTRAIN COMPRESSION OF BERYLLIUM AND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 2. SLIP TRACE ANALYSIS AND TRANSMISSION ELECTRON MICROSCOPY V242 987-994
CONSTRAINED DEFORMATION OF SINGLE CRYSTALS V242 1587-1594
ON ESTIMATING THE STRENGTH OF PARTIALLY ORDERED CRYSTALS V242 1599-1603
DISCUSSION OF PLASTIC DEFORMATION OF SINGLE CRYSTAL-NIAL V242 1753-1754
THE DEFORMATION OF LEAD V242 2111-2120

SINGLE CRYSTALS, METALLOGRAPHY
DISLOCATION STRUCTURES IN NIOBIUM --COLUMBIUM-- SINGLE CRYSTALS OBSERVED BY OPTICAL MICROSCOPY V242 196-205
NUMERICAL TECHNIQUE FOR ALIGNING CRYSTALS FROM LAUE PHOTOGRAPHS V242 341-342
FURTHER OBSERVATIONS ON THE INDENTATION OF GERMANIUM AT ROOM TEMPERATURE V242 1479-1481

SINGLE CRYSTALS, PHASE TRANSFORMATIONS
STRESS-INDUCED MARTENSITE IN SINGLE CRYSTALS OF CU-ZN BETA PHASE ALLOYS V242 1267-1274

SINGLE CRYSTALS, TRANSPORT PROPERTIES
CRYSTAL GROWTH, ANNEALING, AND DIFFUSION OF LEAD-TIN CHALCOGENIDES V242 374-383

SINTERED COMPACTS
SEE POWDER METALLURGY PARTS

SINTERED METAL
SEE POWDER METALLURGY PARTS

SINTERINGS
SEE POWDER METALLURGY PARTS

SIZE DISTRIBUTION /PARTICLE/
SEE PARTICLE SIZE DISTRIBUTION

SLABS, PHASE TRANSFORMATIONS
UNIDIMENSIONAL SOLIDIFICATION OF A SLAB-VARIABLE SURFACE TEMPERATURE V242 283-291

SLAGS
COMMENTS ON OXYGEN STEELMAKING V242 2377-2388

SLAGS, CRYSTAL GROWTH
THE SOLIDIFICATION OF ELECTROSLAG FLUXES V242 1462-1464

SLAGS, DIMENSIONAL ANALYSIS
THE EFFECT OF SLAG THICKNESS ON HEAT LOSS FROM LADLES HOLDING MOLTEN STEEL V242 961-965

SLAGS, REDUCTION /CHEMICAL/
KINETICS OF MANGANESE OXIDE REDUCTION FROM BASIC SLAGS BY SILICON DISSOLVED IN LIQUID IRON V242 565-575

SLAGS, SOLUBILITY
THERMODYNAMICS OF CARBIDE FORMATION AND GRAPHITE SOLUBILITY IN THE CAO-SIO2-AL2O3 SYSTEM V242 2033-2037

SLAGS, TERNARY SYSTEMS
SOLID-LIQUID EQUILIBRIA IN THE SYSTEM CAO-FEO-MNO IN CONTACT WITH METALLIC IRON V242 2389-2392

SLIP
SEE ALSO CROSS SLIP
PLANE-STRAIN COMPRESSION OF MAGNESIUM AND MAGNESIUM ALLOY CRYSTALS V242 5-13
THE PLASTIC DEFORMATION OF NIOBIUM --COLUMBIUM-- MOLYBDENUM ALLOY SINGLE CRYSTALS V242 120-126
IMPURITY EFFECTS ON BASAL SLIP IN ZINC SINGLE CRYSTALS V242 132-138
DISLOCATION DENSITY IN SINGLE CRYSTALS OF SILICON-IRON DURING LOW CYCLE FATIGUE V242 956-958
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES V242 979-986
MICROSTRAIN COMPRESSION OF BERYLLIUM AND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 2. SLIP TRACE ANALYSIS AND TRANSMISSION ELECTRON MICROSCOPY V242 987-994
COMPILATION OF THE MODES OF ELASTIC WAVE PROPAGATION AND THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN COPPER V242 1071-1076
DISLOCATION REACTIONS IN ANISOTROPIC BCC METALS V242 1101-1104
TEXTURES IN DEFORMED ZIRCONIUM SINGLE CRYSTALS V242 1105-1110
INTERNAL DEFORMATION AND FRACTURE OF SECOND-ORDER --1011-- - --1012-- TWINS IN MAGNESIUM V242 1127-1133
FACTORS INFLUENCING THE DISLOCATION STRUCTURES IN FATIGUED METALS V242 1253-1257
STRESS-INDUCED MARTENSITE IN SINGLE CRYSTALS OF CU-ZN BETA PHASE ALLOYS V242 1267-1274
NUMERICAL ANALYSIS OF DEFORMATION TWIN BEHAVIOR. PT. 1. LARGE STATIC TWINS V242 1405-1412
CONSTRAINED DEFORMATION OF SINGLE CRYSTALS V242 1587-1594
DISCUSSION OF PLASTIC DEFORMATION OF SINGLE CRYSTAL-NIAL V242 1753-1754
GRAIN BOUNDARY SLIDING, MIGRATION, AND DEFORMATION IN HIGH-PURITY ALUMINUM V242 1823-1830
DEFORMATION OF ALPHA PLUTONIUM V242 1865-1867
DISCUSSION OF IMPURITY EFFECTS ON BASAL SLIP IN ZINC SINGLE CRYSTALS V242 2022-2024
EXPERIMENTAL STUDY OF THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN ALUMINUM CRYSTALS V242 2185-2190
OBSERVATIONS OF ETCH-PIT ARRANGEMENTS IN ALPHA-CU/AL SINGLE CRYSTALS FORMED DURING CREEP AND AN ANALYSIS OF SUBBOUNDARY FORMATION V242 2245-2249
ORIENTATION DEPENDENCE OF DISLOCATION DAMPING AND ELASTIC CONSTANTS IN FE-18CR-NI SINGLE CRYSTALS V242 2363-2364
EVIDENCE FOR THE IMPORTANCE OF CRYSTALLOGRAPHIC SLIP DURING SUPERPLASTIC DEFORMATION OF EUTECTIC ZINC-ALUMINUM V242 2485-2489

SLIP, ALLOYING EFFECTS
INFLUENCE OF A 3.28 PCT NICKEL ADDITION ON THE YIELD AND FRACTURE BEHAVIOR OF ALPHA IRON V242 306-314

SMELTING
THE LEAD SMELTER TODAY V242 552-557

SODIUM, DIFFUSION
CONVECTION EFFECTS IN THE CAPILLARY RESERVOIR TECHNIQUE FOR MEASURING LIQUID METAL DIFFUSION COEFFICIENTS V242 1937-1942

SODIUM, ELECTROCHEMISTRY
ELECTROTRANSPORT AND RESISTIVITY IN DILUTE SOLUTIONS OF CADMIUM, MERCURY, AND TIN IN MOLTEN SODIUM V242 1335-1341

SODIUM, SOLUBILITY
SOLUBILITY OF METALS IN LIQUID SODIUM.. THE SYSTEMS SODIUM-SILVER, SODIUM-ZINC, AND SODIUM-CERIUM V242 2169-2171

SOFT ANNEALING
SEE ANNEALING

SOFTENING POINTS
THE DETERMINATION OF RAPID RECRYSTALLIZATION RATES OF AUSTENITE AT THE TEMPERATURES OF HOT DEFORMATION V242 2305-2308

SOFTENING RANGES
SEE SOFTENING POINTS

SOLDER COATING
SEE ALLOY PLATING

SOLDER PLATING
SEE ALLOY PLATING

SOLID PHASES
THE STRUCTURE OF FACETED/NONFACETED EUTECTICS V242 1043-1047

SOLID SOLUBILITY
THE RELATIONSHIP BETWEEN FIRST-ORDER INTERACTIONS AND OXIDE SOLUBILITIES IN LIQUID IRON V242 2-4
ON THE CONSTITUTION OF THE PSEUDOBINARY SECTION LEAD TELLURIDE-IRON V242 72-75
SOLUBILITY OF SULFUR IN IRON ALLOYS AT 1000 C V242 161-162
ON THE SOLID SOLUTIONS OF TIN TELLURIDE AND LEAD TELLURIDE V242 371-373
PHASE RELATIONS IN THE SYSTEM SNTE-SNSE V242 709-712
ON THE CONSTITUTION OF THE SYSTEM COBALT-LEAD TELLURIDE V242 747-749
ON THE TRANSFORMATION OF CAO TO CAS AT 1400 TO 1650 C V242 1039-1042
THE SOLID SOLUBILITIES OF SILVER, ALUMINUM, CHROMIUM, COPPER, AND IRON IN ZONE-REFINED BERYLLIUM V242 1385-1391
THERMODYNAMIC PROPERTIES OF SOLID CR-AL ALLOYS AT 1000 C V242 1685-1688
PHASE STUDIES IN THE SYSTEM MANGANESE SULFIDE-CADMIUM SULFIDE V242 1969-1972
THE MAGNESIUM-TITANIUM PHASE DIAGRAM TO 1.0 PCT TITANIUM V242 2069-2073

SOLID SOLUTIONS

SEE ALSO INTERSTITIAL SOLUTIONS
SUBSTITUTIONAL SOLID SOLUTIONS
SOLID SOLUTIONS, MECHANICAL PROPERTIES
DISCUSSION OF SOLID-SOLUTION STRENGTHENING IN IRON-BASE ALLOYS V242 351-352
SOLID SOLUTIONS, MICROSTRUCTURE
MORPHOLOGICAL STUDY OF THE AGING OF A ZN-1 PCT CU ALLOY V242 1381-1384
SOLID SOLUTIONS, PHASE TRANSFORMATIONS
ACTIVITIES IN SOLID IRIDIUM-IRON AND RHODIUM-IRON ALLOYS AT 1200 C V242 631-633
SOLID SOLUTIONS, PHYSICAL PROPERTIES
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER V242 272-277
SOLIDIFICATION
HYDROSTATIC TENSIONS IN SOLIDIFYING MATERIALS V242 264-268
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271
UNIDIMENSIONAL SOLIDIFICATION OF A SLAB-VARIABLE SURFACE TEMPERATURE V242 283-291
ACTIVITY OF CARBON IN LIQUID IRON-CARBON-CHROMIUM SOLUTIONS V242 349-350
THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 690-698
--DISCUSSION ON-- MACROSEGREGATION.. PT. 1 V242 757-759
SOLID-LIQUID INTERFACE STABILITY DURING SOLIDIFICATION OF DILUTE TERNARY ALLOYS V242 800-809
MICROSEGREGATION IN STEEL CASTINGS V242 853-858
A MODIFIED HEAT OF FUSION FOR USE IN THE MATHEMATICAL FORMULATION OF SOLIDIFICATION PROCESSES V242 1289-1292
THE SOLIDIFICATION OF ELECTROSLAG FLUXES V242 1462-1464
THE FORMATION OF LAYER POROSITY V242 1464-1465
EXPERIMENTAL STUDY OF SOLIDIFICATION OF ALUMINUM-COPPER ALLOYS V242 1569-1574
THE RELATION OF DUCTILITY TO DENDRITE CELL SIZE IN A CAST AL-SI-MG ALLOY V242 2063-2067
SEGREGATION AND CONSTITUTIONAL SUPERCOOLING IN ALLOYS SOLIDIFYING WITH A CELLULAR SOLID-LIQUID INTERFACE V242 2091-2097
DISCUSSION OF THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 2240-2241
SOLIDUS
THE MAGNESIUM-TITANIUM PHASE DIAGRAM TO 1.0 PCT TITANIUM V242 2069-2073
SOLUBILITY
SEE ALSO SOLID SOLUBILITY
KINETICS OF AUSTENITE FORMATION FROM A SPHEROIDIZED FERRITE-CARBIDE AGGREGATE V242 206-214
THE SOLUBILITY OF ALUMINUM IN CRYOLITE MELTS V242 231-237
THERMODYNAMIC ANALYSIS OF DILUTE TERNARY SYSTEMS. PT. 1. THE AG-AU-SN SYSTEM V242 291-295
THE SOLUBILITY OF HYDROGEN IN SOLID NI-CU ALLOYS V242 332-333
THE SOLUBILITY OF HYDROGEN IN LIQUID SILVER V242 343
REPRODUCIBLE DIFFUSION OF ZINC INTO GAAS.. APPLICATION OF THE TERNARY PHASE DIAGRAM AND THE DIFFUSION AND SOLUBILITY ANALYSES V242 406-412
SOLUBILITY AND INTERSTITIAL MIGRATION OF OXYGEN IN BCC IRON V242 749-750
THE SOLUBILITY OF OXYGEN IN LIQUID SILVER-GOLD, SILVER-PLATINUM, AND SILVER-PALLADIUM ALLOYS V242 869-875
A STUDY OF THE THERMODYNAMICS OF CARBON IN AUSTENITE BY AN ELECTROCHEMICAL METHOD V242 1083-1089
CHROMIUM SOLUBILITY IN WUSTITE AT 1000 C CHANGES IN OXYGEN ACTIVITY AND LATTICE PARAMETER V242 1259-1265
THE SOLUBILITY OF NITROGEN IN LIQUID IRON AND LIQUID IRON-CARBON ALLOYS V242 1309-1315
PREDICTING TERNARY DIFFUSION INTERACTIONS FROM SOLUBILITY RELATIONSHIPS V242 1470-1472
A NOTE ON THE DARKEN-ALCOCK-RICHARDSON EQUATION FOR DILUTE SOLUTIONS OF SOLUTES IN BINARY ALLOY SOLVENTS V242 1472-1473
DISCUSSION OF THE SOLUBILITY LIMIT AND DIFFUSIVITY OF CARBON IN MOLYBDENUM V242 1483
STUDY OF THE MANGANESE-RICH END OF MN-SN SYSTEM V242 1661-1663
THE EFFECT OF HYDROGEN ON THE STRUCTURE AND PROPERTIES OF VANADIUM V242 1775-1784
THERMODYNAMICS OF CARBIDE FORMATION AND GRAPHITE SOLUBILITY IN THE CAO-SIO2-AL2O3 SYSTEM V242 2033-2037
THERMODYNAMIC PROPERTIES OF COPPER AND GOLD IN SILICON AND GERMANIUM V242 2055-2061
THE SOLUBILITY OF CARBON IN COBALT AND NICKEL V242 2129-2132
SOLUBILITY OF METALS IN LIQUID SODIUM.. THE SYSTEMS SODIUM-SILVER, SODIUM-ZINC, AND SODIUM-CERIUM V242 2169-2171
SULFUR SOLUBILITY AND INTERNAL SULFIDATION OF IRON-TITANIUM ALLOYS V242 2433-2439
THE EFFECT OF ALLOYING ELEMENTS ON THE SOLUBILITY OF NITROGEN IN LIQUID IRON-CHROMIUM-NICKEL ALLOYS V242 2501-2505
SOLUBILITY, ALLOYING EFFECTS
OXYGEN-ALLOYING ELEMENT INTERACTIONS IN LIQUID SILVER V242 929-935
THE EQUILIBRIUM BETWEEN ALUMINUM AND NITROGEN IN LIQUID 18 PCT CR-8 PCT NI STAINLESS STEEL V242 2453-2456
NITROGEN SOLUBILITY IN LIQUID FE-CR-NI ALLOYS V242 2457-2459
SOLUTES
SEGREGATION AND CONSTITUTIONAL SUPERCOOLING IN ALLOYS SOLIDIFYING WITH A CELLULAR SOLID-LIQUID INTERFACE V242 2091-2097
SOLUTION HARDENING
SEE SOLUTION STRENGTHENING
SOLUTION HEAT TREATMENT
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452
SOLUTION STRENGTHENING
DISCUSSION OF SOLID-SOLUTION STRENGTHENING IN IRON-BASE ALLOYS V242 351-352
DILATION OF NICKEL LATTICE BY DISSOLVED CARBON V242 765-766
SOLVATION
SEE DISSOLVING
SOLVUS /METALLURGICAL/
SEE SOLID SOLUBILITY
SORPTION
SEE ABSORPTION /MATERIAL/
CHEMISORPTION
SOUND
SEE SOUND WAVES
SOUND WAVES
SEE ALSO SHOCK WAVES
COMPILATION OF THE MODES OF ELASTIC WAVE PROPAGATION AND THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN COPPER V242 1071-1076
SPACE LATTICES
SEE CRYSTAL LATTICES
SPECIFIC DENSITY
SEE DENSITY
SPECIFIC GRAVITY
SEE DENSITY
SPECIFIC HEAT
A MODIFIED HEAT OF FUSION FOR USE IN THE MATHEMATICAL FORMULATION OF SOLIDIFICATION PROCESSES V242 1289-1292
DISCUSSION OF THERMAL PROPERTIES OF TANTALUM MONOCARBIDE AND TUNGSTEN MONOCARBIDE V242 1751-1752
LOW-TEMPERATURE HEAT CAPACITY AND HIGH TEMPERATURE ENTHALPY OF CAMG2 V242 2051-2054
SPECIFIC RESISTANCE
SEE RESISTIVITY
SPECIFIC VOLUME
SEE DENSITY
SPECIFIC WEIGHT
SEE DENSITY
SPECTROCHEMICAL ANALYSIS
ON THE DETECTION OF RETAINED AUSTENITE IN HIGH-CARBON STEELS BY FE57 MOSSBAUER SPECTROSCOPY, WITH APPENDIX V242 1915-1925
SPECTROGRAPHY
SEE SPECTROSCOPY
SPECTROMETERS
SEE MASS SPECTROMETERS
SPECTROSCOPIC ANALYSIS
SEE SPECTROCHEMICAL ANALYSIS

SPECTROSCOPY
SEE ALSO SPECTROCHEMICAL ANALYSIS
X RAY SPECTROSCOPY
DETERMINATION OF THE MISCIBILITY GAP IN THE AU-NI SYSTEM BY MEANS OF THE MOSSBAUER EFFECT V242 1503-1507
SPELTER
SEE ZINC
SPHERES
THE TRANSIENT HEATING OR COOLING OF SPHERES BY THERMAL RADIATION AT THE BOUNDING SURFACE V242 612-618
SPHERICITY
SEE SPHERES
SPHEROIDAL STRUCTURE
THE STRENGTHENING MECHANISM IN SPHEROIDIZED CARBON STEELS V242 1535-1542
SPONGINESS
SEE POROSITY
SPUTTERING
SPUTTERED SILICON DIOXIDE FOR MULTILAYER INTERCONNECTS V242 523-526
PROCESSING AND EVALUATION OF RF SPUTTERED QUARTZ V242 526-531
SQUEEZING
SEE COMPRESSING
STABILITY
SEE ALSO PHASE STABILITY
THERMAL STABILITY
POLARIZATION EFFECTS IN INSULATING FILMS ON SILICON--A REVIEW V242 512-523
STABILIZERS /AGENTS/
OXYGEN DIFFUSIVITY IN BCC IRON STABILIZED BY PHOSPHOROUS V242 698-700
STACKING FAULT ENERGY
SEE FREE ENERGY OF ACTIVATION
STACKING FAULTS
STACKING FAULTS
TEXTURE DEVELOPMENT IN COPPER AND 70-30 BRASS V242 88-93
THE RELATIVE MAGNITUDES OF THE EXTRINSIC AND INTRINSIC STACKING FAULT ENERGIES V242 103-105
COLLAPSED TETRAHEDRA AND STACKING FAULT ENERGY IN GOLD V242 347-349
STUDY OF THE BETA TO ALPHA TRANSFORMATION IN LANTHANUM V242 579-587
X-RAY INVESTIGATIONS ON THE STRUCTURE OF SILVER FILMS EVAPORATED ON CAF2 AND NACL SINGLE-CRYSTAL SUBSTRATES V242 1111-1115
SOME INTERFACIAL PROPERTIES OF FCC COBALT V242 1145-1148
FACTORS INFLUENCING THE DISLOCATION STRUCTURES IN FATIGUED METALS V242 1253-1257
EFFECTS OF ELASTIC ANISOTROPY ON DISLOCATIONS IN HCP METALS V242 1575-1586
CONSTRAINED DEFORMATION OF SINGLE CRYSTALS V242 1587-1594
AN X-RAY LINE-BROADENING STUDY OF RECOVERY IN MONEL 400 V242 1645-1649
CARBIDE PRECIPITATION ON IMPERFECTIONS IN SUPERALLOY MATRICES V242 1651-1656
STACKING FAULTS, COMPOSITION EFFECTS
COMPOSITIONAL EFFECTS ON THE DEFORMATION MODES, ANNEALING TWIN FREQUENCIES, AND STACKING FAULT ENERGIES OF AUSTENITIC STAINLESS STEELS V242 771-776
STAINLESS STEELS
SEE ALSO AUSTENITIC STAINLESS STEELS
STAINLESS STEELS, REACTIONS /CHEMICAL/
PASSIVATION REACTIONS OF NICKEL AND COPPER ALLOYS WITH FLUORINE V242 1635-1643
STATIC PRESSURE
SEE HYDROSTATIC PRESSURE
STATIC TESTS
SEE BEND TESTS
CREEP TESTS
KNOOP HARDNESS TESTS
STEADY STATE
ACTIVATION ENERGIES FOR HIGH-TEMPERATURE STEADY-STATE CREEP IN LEAD SULFIDE--II V242 1456-1457
STEEL ALLOYS
SEE ALLOY STEELS
STEEL CONSTITUENTS
SEE AUSTENITE
BAINITE
CEMENTITE
FERRITE
MARTENSITE
PEARLITE
RETAINED AUSTENITE
STEEL CONVERTERS
SEE LD CONVERTERS
STEEL MAKING
SEE ALSO LD CONVERTERS
THE RELEVANCE OF STOKES LAW TO THE PHYSICAL CONDITIONS OF STEELMAKING V242 1475-1476
STEELS
SEE ALSO ALLOY STEELS
CARBON STEELS
LOW ALLOY STEELS
MARAGING STEELS
SILICON STEELS
STAINLESS STEELS
STRUCTURAL STEELS
STEELS, CRYSTAL LATTICES
-110- TWINNING IN BCT MARTENSITE V242 337-338
STEELS, THERMAL PROPERTIES
THE EFFECT OF SLAG THICKNESS ON HEAT LOSS FROM LADLES HOLDING MOLTEN STEEL V242 961-965
STIRRING
THE INFLUENCE OF MECHANICAL STIRRING ON THE COLUMNAR TO EQUIAXED TRANSITION IN ALUMINUM-COPPER ALLOYS V242 690-698
STOKES LAW /FLUID MECHANICS/
THE RELEVANCE OF STOKES LAW TO THE PHYSICAL CONDITIONS OF STEELMAKING V242 1475-1476
STORAGE
HIGH DAMPING CAPACITY MANGANESE-COPPER ALLOYS. PT. 2. THE EFFECT OF STORAGE AND OF DEFORMATION ON THE DAMPING CAPACITY OF 70/30 MN-CU ALLOY V242 2107-2109
STORED ENERGY
SEE INTERNAL ENERGY
STORING
SEE STORAGE
STRAIN
DISCUSSION OF THE CONTRIBUTION OF GRAIN BOUNDARY SLIDING TO THE OVERALL STRAIN OF A POLYCRYSTAL V242 2238-2240
THE USE OF GRAIN STRAIN MEASUREMENTS IN STUDIES OF HIGH-TEMPERATURE CR V242 2479-2484
STRAIN AGE HARDENING
SEE STRAIN AGING
STRAIN AGING
DISLOCATION TANGLE FORMATION AND STRAIN AGING IN CARBURIZED SINGLE CRYSTALS OF 3.25 PCT SILICON-IRON V242 1413-1418
PRECIPITATION IN CYCLICALLY STRAINED AL-4 WT PCT CU--THE FORMATION OF GUINIER-PRESTON ZONES V242 1727-1731
STRAIN HARDENING
INFLUENCE OF WORK-HARDENING EXPONENT ON THE FRACTURE TOUGHNESS OF HIGH-STRENGTH MATERIALS V242 320-328
DISLOCATION STRUCTURES IN SLIGHTLY STRAINED TUNGSTEN, TUNGSTEN-RHENIUM, AND TUNGSTEN-TANTALUM ALLOYS V242 634-640
GRAIN GROWTH AND RECRYSTALLIZATION IN THORIA-DISPERSED NICKEL AND NICHROME V242 640-648
DEFORMATION MECHANISMS IN TITANIUM AND TITANIUM-ALUMINUM ALLOYS V242 648-653
YIELDING, WORK HARDENING, AND CLEAVAGE IN TANTALUM-RHENIUM ALLOY SINGLE CRYSTALS V242 907-917
THE AGING CHARACTERISTICS OF AN FE-11 AT.PCT. MO ALLOY V242 1001-1007
THE MECHANICAL PROPERTIES OF PHYSICAL VAPOR DEPOSITED TITANIUM V242 2251-2256
DEFORMATION BEHAVIOR IN THE NEAR-EQUIATOMIC NI-TI ALLOYS V242 2393-2398
STRAIN RATE
EVIDENCE FOR DIFFUSIONAL CREEP WITH LOW STRAIN RATE SENSITIVITY V242 329-331
CREEP CORRELATIONS FOR BCC REFRACTORY METALS V242 345-347
THE LOW-TEMPERATURE DEFORMATION MECHANISM OF BCC MG-14 WT PCT LI-1.5 WT PCT AL ALLOY V242 1449-1452
COMPRESSIVE CREEP OF POLYCRYSTALLINE URANIUM MONONITRIDE IN NITROGEN V242 1466-1467
EFFECT OF STRAIN RATE AND TEMPERATURE AT HIGH STRAINS ON FATIGUE BEHAVIOR OF SAP ALLOYS V242 1605-1611
HOT COMPRESSION OF ARMCO IRON AND SILICON STEEL

V242 1619-1626
THE ELONGATION OF SUPERPLASTIC ALLOYS
V242 2221-2227
THE EFFECT OF STRAIN RATE AND TEMPERATURE ON THE FLOW STRESS OF 7075 ALUMINUM V242 2295-2297
STRENGTHENING /SOLUTION/
SEE SOLUTION STRENGTHENING
STRESS AGING
SEE STRAIN AGING
STRESS CORROSION CRACKING
STRESS CORROSION CRACKING OF 18 PCT NI MARAGING STEEL IN ACIDIFIED SODIUM CHLORIDE SOLUTION
V242 1943-1953
STRESS CORROSION RESISTANCE
SEE CORROSION RESISTANCE
STRESS STRAIN CURVES
THE PLASTIC DEFORMATION OF NIOBIUM --COLUMBIUM-- MOLYBDENUM ALLOY SINGLE CRYSTALS
V242 120-126
THE PORTEVIN-LE CHATELIER EFFECT IN NICKEL-COPPER ALLOYS V242 333-335
DISCUSSION OF SOLID-SOLUTION STRENGTHENING IN IRON-BASE ALLOYS V242 351-352
DISLOCATION STRUCTURES IN SLIGHTLY STRAINED TUNGSTEN, TUNGSTEN-RHENIUM, AND TUNGSTEN-TANTALUM ALLOYS V242 634-640
DEFORMATION MECHANISMS IN TITANIUM AND TITANIUM-ALUMINUM ALLOYS V242 648-653
THE DEFORMATION CHARACTERISTICS OF TEXTURED MAGNESIUM V242 654-660
YIELDING, WORK HARDENING, AND CLEAVAGE IN TANTALUM-RHENIUM ALLOY SINGLE CRYSTALS
V242 907-917
MICROSTRAIN COMPRESSION OF BERYLLIUM AAND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 1. CRYSTAL PREPARATION AND MICROSTRAIN PROPERTIES V242 979-986
THE STRESS-STRAIN RATE BEHAVIOR OF A MANGANESE STEEL IN THE TEMPERATURE RANGE OF THE FERRITE-AUSTENITE TRANSFORMATION V242 1281-1287
COMPRESSIVE CREEP OF POLYCRYSTALLINE URANIUM MONONITRIDE IN NITROGEN V242 1466-1467
EFFECTS OF HYDROSTATIC PRESSURE ON THE MECHANICAL BEHAVIOR OF POLYCRYSTALLINE BERYLLIUM
V242 2081-2089
THE DEFORMATION OF LEAD V242 2111-2120
THE TEMPERATURE DEPENDENCE OF MICROYIELDING IN POLYCRYSTALLINE CU 1.9 WT PCT BE
V242 2163-2167
ALUMINUM EXTRUSION AS THERMALLY ACTIVATED PROCESS
V242 2271-2280
THE EFFECT OF STRAIN RATE AND TEMPERATURE ON THE FLOW STRESS OF 7075 ALUMINUM V242 2295-2297
THE EFFECT OF DISPERSED HARD PARTICLES ON THE HARD-STRAIN FATIGUE BEHAVIOR OF NICKEL AT ROOM TEMPERATURE V242 2347-2353
DEFORMATION BEHAVIOR IN THE NEAR-EQUIATOMIC NI-TI ALLOYS V242 2393-2398
STRESS STRAIN CURVES, IMPURITY EFFECTS
IMPURITY EFFECTS ON BASAL SLIP IN ZINC SINGLE CRYSTALS V242 132-138
STRESSES
SEE AXIAL STRESS
RESIDUAL STRESS
STRUCTURAL MATERIALS
SEE STRUCTURAL STEELS
STRUCTURAL STEELS, STRUCTURAL HARDENING
THE INFLUENCE OF NITROGEN, TITANIUM, AND ZIRCONIUM ON THE BORON HARDENABILITY EFFECT IN CONSTRUCTIONAL ALLOY STEELS V242 1689-1694
STRUCTURE /ATOMIC/
SEE ATOMIC STRUCTURE
STRUCTURE /EQUIAXED/
SEE EQUIAXED STRUCTURE
STRUCTURES /CRYSTALLINE/
SEE COLUMNAR STRUCTURE
CRYSTAL STRUCTURE
DENDRITIC STRUCTURE
EQUIAXED STRUCTURE
GRAIN STRUCTURE
HYPEREUTECTIC STRUCTURES
INTERGRANULAR STRUCTURE
LAMELLAR STRUCTURE
MACROSTRUCTURE
MICROSTRUCTURE
SPHEROIDAL STRUCTURE
UNIT CELL
SUBSTITUTIONAL SOLID SOLUTIONS
STATISTICAL THERMODYNAMICS OF CARBON IN TERNARY AUSTENITIC IRON-BASE ALLOYS V242 862-869
THERMODYNAMIC PROPERTIES OF INTERSTITIAL SOLUTIONS OF IRON-BASE ALLOYS V242 1135-1143
SUBSTRUCTURES
DISLOCATION STRUCTURES IN SLIGHTLY STRAINED TUNGSTEN, TUNGSTEN-RHENIUM, AND TUNGSTEN-TANTALUM ALLOYS V242 634-640
CARBIDE PRECIPITATION ON IMPERFECTIONS IN SUPERALLOY MATRICES V242 1651-1656
INTERNAL VOID FORMATION IN POWDER METALLURGY TUNGSTEN V242 2191-2198
SULFATES, REACTIONS /CHEMICAL/
KINETICS OF THE FORMATION OF MNSO4 FROM MNO2, MN2O3, AND MN3O4 AND ITS DECOMPOSITION TO MN2O3 OR MN3O4 V242 2039-2043
SULFATING
SEE SULFATION
SULFATION
IRON-SULFUR SYSTEM. PT. 1. GROWTH RATE OF FERROUS SULFIDE ON IRON AND DIFFUSIVITIES OF IRON IN FERROUS SULFIDE V242 1665-1672
IRON-SULFUR SYSTEM. PT. 2. RATE OF REACTION OF HYDROGEN SULFIDE WITH FERROUS SULFIDE
V242 1673-1678
KINETICS AND MECHANISM OF SULFATION OF ZINC OXIDE
V242 1761
KINETICS OF THE FORMATION OF MNSO4 FROM MNO2, MN2O3, AND MN3O4 AND ITS DECOMPOSITION TO MN2O3 OR MN3O4 V242 2039-2043
SULFUR SOLUBILITY AND INTERNAL SULFIDATION OF IRON-TITANIUM ALLOYS V242 2433-2439
SULFATIZING
SEE SULFATION
SULFIDES
SEE ALSO HYDROGEN SULFIDE
THE FREE ENERGY OF FORMATION OF RES2
V242 2143-2145
SULFIDES, BENEFICIATION
THE CATALYZED OXIDATION OF ZINC SULFIDE UNDER ACID PRESSURE LEACHING CONDITIONS V242 1815-1821
SULFIDES, BINARY SYSTEMS
PHASE STUDIES IN THE SYSTEM MANGANESE SULFIDE-CADMIUM SULFIDE V242 1969-1972
THE MNTE-MNS SYSTEM V242 2153-2154
SULFIDES, CRYSTAL GROWTH
GROWTH OF CUBIC ZINC SULFIDE FROM MOLTEN LEAD CHLORIDE V242 441-443
SULFIDES, ELECTRICAL PROPERTIES
INJECTION LUMINESCENCE IN RARE-EARTH-DOPED CDS HETEROJUNCTIONS V242 448-452
SULFIDES, MECHANICAL PROPERTIES
ACTIVATION ENERGIES FOR HIGH-TEMPERATURE STEADY-STATE CREEP IN LEAD SULFIDE--II
V242 1456-1457
SULFIDES, REACTIONS /CHEMICAL/
ON THE TRANSFORMATION OF CAO TO CAS AT 1400 TO 1650 C V242 1039-1042
SULFIDING
SEE SULFIDIZATION
SULFIDIZATION
CONTRIBUTION TO THE STUDY OF HOT CORROSION
V242 1955-1961
SULFIDIZING
SEE SULFIDIZATION
SULFUR, DIFFUSION
RECRYSTALLIZATION OF THORIATED NICKEL ASSOCIATED WITH IMPURITY DIFFUSION V242 750-751
SULFUR DIFFUSION THROUGH CR2O3 AT 1000 C
V242 752-754
SULFUR, EXTRACTION
THE ANODIC DISSOLUTION OF COPPER --1-- SULFIDE AND THE DIRECT RECOVERY OF COPPER AND ELEMENTAL SULFUR FROM WHITE METAL V242 780-787
SULFUR, REACTIONS /CHEMICAL/
IRON-SULFUR SYSTEM. PT. 1. GROWTH RATE OF FERROUS SULFIDE ON IRON AND DIFFUSIVITIES OF IRON IN FERROUS SULFIDE V242 1665-1672
IRON-SULFUR SYSTEM. PT. 2. RATE OF REACTION OF HYDROGEN SULFIDE WITH FERROUS SULFIDE
V242 1673-1678
SULFUR, SOLUBILITY
SOLUBILITY OF SULFUR IN IRON ALLOYS AT 1000 C
V242 161-162
SULFUR IN LIQUID IRON ALLOYS.. PT. 1. BINARY FE-S
V242 940-946
SOLUBILITY AND PERMEABILITY OF SULFUR IN ALPHA IRON
V242 1049-1056
SULFUR SOLUBILITY AND INTERNAL SULFIDATION OF IRON-TITANIUM ALLOYS V242 2433-2439

SULFUR COMPOUNDS

SULFUR COMPOUNDS, THERMAL PROPERTIES
THERMODYNAMICS OF THE THERMAL DECOMPOSITION OF 1050 K ALUMINUM SULFATE.. THE AL-S-O SYSTEM FROM 850 TO V242 1299-1302
SULPHUR
SEE SULFUR
SUPERCONDUCTIVITY
THE SUPERCONDUCTING PERFORMANCE OF DIFFUSION-PROCESSED NB3SN--CB3SN-- DOPED WITH ZRO2 PARTICLES V242 1067-1070
AGING IN NB--CB---TI-O SUPERCONDUCTORS V242 2263-2270
SUPERCONDUCTIVITY, COMPOSITION EFFECTS
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607
CRITICAL CURRENT OF SUPERCONDUCTING NB --CB---ZR-TI ALLOYS IN HIGH MAGNETIC FIELD V242 1793-1800
SUPERCONDUCTORS, STRUCTURAL HARDENING
AGING IN NB--CB---TI-O SUPERCONDUCTORS V242 2263-2270
SUPERCOOLING
DYNAMIC NUCLEATION OF SUPERCOOLED METALS V242 256-263
EFFECT OF LOW-ENERGY ULTRASONIC VIBRATIONS ON DYNAMIC NUCLEATION V242 736-738
SOLID-LIQUID INTERFACE STABILITY DURING SOLIDIFICATION OF DILUTE TERNARY ALLOYS V242 800-809
ON THE NATURE OF THE CHILL ZONE IN INGOT SOLIDIFICATION V242 1121-1125
VACUUM DECANTING OF BISMUTH ALLOYS V242 1517-1521
SEGREGATION AND CONSTITUTIONAL SUPERCOOLING IN ALLOYS SOLIDIFYING WITH A CELLULAR SOLID-LIQUID INTERFACE V242 2091-2097
THE UNDERCOOLING OF COPPER AND COPPER-OXYGEN ALLOYS V242 2133-2138
SUPERPLASTICITY
THE RELATION BETWEEN SUPERPLASTICITY AND GRAIN BOUNDARY SHEAR IN THE ALUMINUM-ZINC EUTECTOID ALLOY V242 25-31
SUPERPLASTICITY OF UNALLOYED BETA PLUTONIUM V242 126-132
STRUCTURAL CHANGES DURING SUPERPLASTIC DEFORMATION IN AL-78 WT PCT ZN ALLOY V242 716-719
SUPERPLASTICITY IN 60ZN-40AL V242 740-742
THE INFLUENCE OF STRUCTURE ON THE FLOW STRESS-STRAIN RATE BEHAVIOR OF AN-AL ALLOYS V242 825-832
THE STRESS-STRAIN RATE BEHAVIOR OF A MANGANESE STEEL IN THE TEMPERATURE RANGE OF THE FERRITE-AUSTENITE TRANSFORMATION V242 1281-1287
ENHANCED DUCTILITY IN BINARY CHROMIUM ALLOYS V242 1837-1843
THE ELONGATION OF SUPERPLASTIC ALLOYS V242 2221-2227
EVIDENCE FOR THE IMPORTANCE OF CRYSTALLOGRAPHIC SLIP DURING SUPERPLASTIC DEFORMATION OF EUTECTIC ZINC-ALUMINUM V242 2485-2489
SURFACE CHEMISTRY
IRON-SULFUR SYSTEM. PT. 1. GROWTH RATE OF FERROUS SULFIDE ON IRON AND DIFFUSIVITIES OF IRON IN FERROUS SULFIDE V242 1665-1672
IRON-SULFUR SYSTEM. PT. 2. RATE OF REACTION OF HYDROGEN SULFIDE WITH FERROUS SULFIDE V242 1673-1678
SURFACE COATINGS
SEE COATINGS
SURFACE DIFFUSION
SEE DIFFUSION
SURFACE ENERGY
SOME INTERFACIAL PROPERTIES OF FCC COBALT V242 1145-1148
SURFACE HARDENING
SEE NITRIDING
SULFIDIZATION
SURFACE PROPERTIES
THE DEVELOPMENT OF PREFERRED ORIENTATIONS IN COLD-ROLLED NIOBIUM --COLOMBIUM-- V242 1317-1326
SWAGING
EFFECT OF FABRICATION METHOD ON THE TEXTURE OF ALUMINUM RODS V242 180-182
SYNTHESIS
SYNTHESIS AND SOLUTION GROWTH OF ALUMINUM PHOSPHIDE. PT. 1 V242 424-428
SYNTHESIS AND SOLUTION GROWTH OF ALUMINUM PHOSPHIDE. PT. 2 V242 428-432

TANKS /ELECTROLYTIC/
SEE ELECTROLYTIC CELLS
TANTALUM, ALLOYING ELEMENTS
DISLOCATION STRUCTURES IN SLIGHTLY STRAINED TUNGSTEN, TUNGSTEN-RHENIUM, AND TUNGSTEN-TANTALUM ALLOYS V242 634-640
TANTALUM, FIBER METALLURGY
THE METAL BORIDES IN BORON FIBER CORES., IDENTIFICATION OF MOB4 V242 754-755
TANTALUM BASE ALLOYS, SINGLE CRYSTALS
YIELDING, WORK HARDENING, AND CLEAVAGE IN TANTALUM-RHENIUM ALLOY SINGLE CRYSTALS V242 907-917
TANTALUM COMPOUNDS, THERMAL PROPERTIES
DISCUSSION OF THERMAL PROPERTIES OF TANTALUM MONOCARBIDE AND TUNGSTEN MONOCARBIDE V242 1751-1752
TELLURIUM, BINARY SYSTEMS
ON THE CONSTITUTION OF THE PSEUDOBINARY SECTION LEAD TELLURIDE-IRON V242 72-75
THE PSEUDOBINARY SECTION OF PBTE AND GOLD V242 150-151
METALLURGICAL AND ELECTRONIC PROPERTIES OF PB1-XSNXTE, PB1-XSNXSE, AND OTHER IV-VI ALLOYS V242 354-365
HEATS OF SOLUTIONS OF TELLURIUM IN LIQUID TIN V242 1481-1483
TELLURIUM, TERNARY SYSTEMS
THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236
TELLURIUM COMPOUNDS, BINARY SYSTEMS
ON THE SOLID SOLUTIONS OF TIN TELLURIDE AND LEAD TELLURIDE V242 371-373
THE MNTE-MNS SYSTEM V242 2153-2154
TELLURIUM COMPOUNDS, PHASE TRANSFORMATIONS
PHASE RELATIONS IN THE SYSTEM SNTE-SNSE V242 709-712
TELLURIUM COMPOUNDS, PHASES /STATE OF MATTER/
IDENTIFICATION OF TELLURIUM OR SELENIUM PHASE IN V2VI3 PLUS X ALLOYS BY METALLOGRAPHY V242 145-149
TELLURIUM COMPOUNDS, SINGLE CRYSTALS
GROWTH AND CHARACTERIZATION OF SINGLE CRYSTALS OF PBTE-SNTE V242 366-371
SOLUTION GROWTH OF --ZN,HG--TE AND GA--P,AS-- CRYSTALS V242 436-441
GROWTH OF SINGLE CRYSTALS OF ZNTE AND ZNTE1-XSEX BY TEMPERATURE GRADIEN SOLUTION ZONING V242 444-448
TELLURIUM COMPOUNDS, SOLUBILITY
ON THE CONSTITUTION OF THE SYSTEM COBALT-LEAD TELLURIDE V242 747-749
TEMPER BRITTLENESS, ALLOYING EFFECTS
ALLOY AND IMPURITY EFFECTS ON TEMPER BRITTLENESS OF STEEL V242 14-24
TEMPERATURE
SEE CURIE TEMPERATURE
TENACITY
SEE TENSILE STRENGTH
TENSILE MODULUS
SEE MODULUS OF ELASTICITY
TENSILE PROPERTIES
SEE ALSO TENSILE STRENGTH
--DISCUSSION ON-- THE INFLUENCE OF THERMOMECHANICAL TREATMENTS ON THE MICROSTRUCTURE AND TENSILE PROPERTIES OF HASTELLOY X-280 V242 163-164
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER V242 272-277
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 2. LONG-RANGE ORDER V242 278-283
DISPERSION-STRENGTHENED ALUMINUM PRODUCTS WITH IMPROVED HIGH-TEMPERATURE DUCTILITY V242 954-956
FRACTURE IN DISPERSION-STRENGTHENED NICKEL-CHROMIUM ALLOYS V242 1657-1660
COMPOSITES CONTAINING AGE-HARDENABLE MARAGING STEEL WIRES V242 2014-2015
THE MECHANICAL PROPERTIES OF PHYSICAL VAPOR DEPOSITED TITANIUM V242 2251-2256
TENSILE PROPERTIES, PRESSURE EFFECTS
EFFECTS OF HYDROSTATIC PRESSURE ON THE MECHANICAL BEHAVIOR OF POLYCRYSTALLINE BERYLLIUM

V242 2081-2089
TENSILE PROPERTIES, STRESS EFFECTS
THE STORED ENERGY, ELECTRICAL RESISTIVITY, AND TENSILE PROPERTIES OF COLD-WORKED GOLD V242 880-884
TENSILE STRENGTH
STRUCTURAL CHANGES DURING SUPERPLASTIC DEFORMATION IN AL-78 WT PCT ZN ALLOY V242 716-719
DEVELOPMENT OF THE FREE-MACHINING, HIGH-STRENGTH, HIGH-CONDUCTIVITY CU-CR-PB AND CU-CR-ZR-PB ALLOYS V242 947-952
TENSILE TESTS
SEE TENSION TESTS
TENSILE YIELD STRENGTH
SEE YIELD STRENGTH
TENSION TESTS
EFFECT OF STRAIN RATE AND TEMPERATURE AT HIGH STRAINS ON FATIGUE BEHAVIOR OF SAP ALLOYS V242 1605-1611
TERNARY SYSTEMS
THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236
TERNARY SYSTEMS, DIFFUSION
PREDICTING TERNARY DIFFUSION INTERACTIONS FROM SOLUBILITY RELATIONSHIPS V242 1470-1472
TERNARY SYSTEMS, PHASES /STATE OF MATTER/
VAPOR PRESSURE OF SILVER OVER TERNARY LIQUID CU-AG-AU ALLOYS V242 225-231
REPRODUCIBLE DIFFUSION OF ZINC INTO GAAS.. APPLICATION OF THE TERNARY PHASE DIAGRAM AND THE DIFFUSION AND SOLUBILITY ANALYSES V242 406-412
CONSTITUTIONAL INVESTIGATIONS ON ALLOYS IN THE CARBON-CHROMIUM NICKEL-SILICON SYSTEM V242 760-761
SOLID-LIQUID INTERFACE STABILITY DURING SOLIDIFICATION OF DILUTE TERNARY ALLOYS V242 800-809
THE GOLD-TIN-LEAD ALLOYS--THE GOLD-TIN-LEAD SYSTEM V242 2257-2261
TERNARY SYSTEMS, SOLUBILITY
THERMODYNAMIC ANALYSIS OF DILUTE TERNARY SYSTEMS. PT. 1. THE AG-AU-SN SYSTEM V242 291-295
ACTIVITY OF CARBON IN LIQUID IRON-CARBON-CHROMIUM SOLUTIONS V242 349-350
TETRAGONAL LATTICE
INDENTIFICATION OF THE STRENGTHENING PHASE IN INCONEL ALLOY 718 V242 1764-1765
TEXTURE
ROLLING AND ANNEALING TEXTURES OF LOW-CARBON STEEL SHEETS V242 56-65
TEXTURE DEVELOPMENT IN COPPER AND 70-30 BRASS V242 88-93
THE REPRESENTATION OF THE TEXTURES OF ROLLED COPPER, BRASS, AND ALUMINUM BY BIAXIAL POLE FIGURES V242 105-115
EFFECT OF FABRICATION METHOD ON THE TEXTURE OF ALUMINUM RODS V242 180-182
DEVELOPMENT OF ROLLING TEXTURE IN COPPER AND BRASS V242 314-319
SECONDARY RECRYSTALLIZATION IN IRON V242 833-843
MECHANISM OF REORIENTATION DURING RECRYSTALLIZATION OF POLYCRYSTALLINE TITANIUM V242 1013-1024
TEXTURES IN DEFORMED ZIRCONIUM SINGLE CRYSTALS V242 1105-1110
RECRYSTALLIZATION AND TEXTURE DEVELOPMENT IN A LOW-CARBON, ALUMINUM-KILLED STEEL V242 1149-1160
THE EFFECT OF MANGANESE ON THE SECONDARY RECRYSTALLIZATION OF SILICON-IRON V242 1457-1458
DEPENDENCE OF TEXTURE ON PROCESSING CONDITIONS IN EXTRUDED ALUMINUM WIRES V242 1461
TEXTURE DEVELOPMENT IN --110-- --112-- CRYSTALS OF CU-4 PCT AL AT HIGH DEFORMATIONS V242 1476-1478
THALLIUM, PHYSICAL PROPERTIES
VAPOR PRESSURE OF THALLIUM AND ACTIVITY MEASUREMENTS ON LIQUID SILVER-THALLIUM ALLOYS BY THE TORSION EFFUSION METHOD V242 1231-1232
THE DENSITY AND VISCOSITY OF LIQUID THALLIUM V242 2309-2311
THALLIUM, TERNARY SYSTEMS
THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236
THALLIUM BASE ALLOYS, PHYSICAL PROPERTIES
VAPOR PRESSURE OF THALLIUM AND ACTIVITY MEASUREMENTS ON LIQUID SILVER-THALLIUM ALLOYS BY THE TORSION EFFUSION METHOD V242 1231-1232
THAWING
SEE MELTING
THERMAL CAPACITY
SEE SPECIFIC HEAT
THERMAL CONDUCTIVITY
THERMAL CONDUCTIVITY OF FOUR HEAT-RESISTANT ALLOYS V242 844-846
THERMAL CONDUCTIVITY AND ELECTRICAL RESISTIVITY OF BERYLLIUM COPPER FOIL V242 876-880
THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236
THERMAL CYCLING
ON THE MARTENSITIC TRANSFORMATION OF BETA1 CU-ZN AFTER REPEATED THERMAL CYCLING V242 154-157
THE DEFORMATION OF LEAD V242 2111-2120
ON THE TEMPERATURE EFFECT IN THE FATIGUE FRACTURE OF COPPER AND CU-7.9 WT PCT AL ALLOY V242 2339-2342
THERMAL DECOMPOSITION
SEE PYROLYSIS
THERMAL DIFFUSION
HOT COMPRESSION OF ARMCO IRON AND SILICON STEEL V242 1619-1626
THERMAL EXPANSION
LATTICE PARAMETER AND THERMAL EXPANSION COEFFICIENT OF MOLYBDENUM BETWEEN 15 AND 65 C V242 1185-1186
CHROMIUM SOLUBILITY IN WUSTITE AT 1000 C CHANGES IN OXYGEN ACTIVITY AND LATTICE PARAMETER V242 1259-1265
DISCUSSION OF THERMAL PROPERTIES OF TANTALUM MONOCARBIDE AND TUNGSTEN MONOCARBIDE V242 1751-1752
THERMAL FLUX
SEE HEAT TRANSMISSION
THERMAL PROPERTIES
SEE ALSO HEAT OF FORMATION
HEAT OF FUSION
HEAT OF MIXING
HEAT OF SOLUTION
HEAT OF VAPORIZATION
SOFTENING POINTS
SPECIFIC HEAT
THERMAL CONDUCTIVITY
THERMAL EXPANSION
THERMAL STABILITY
VAPOR PRESSURE
THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390 V242 1217-1222
THERMAL RADIATION
THE TRANSIENT HEATING OR COOLING OF SPHERES BY THERMAL RADIATION AT THE BOUNDING SURFACE V242 612-618
THERMAL REDUCTION
SEE FLUIDIZED BED REDUCTION
THERMAL RESISTIVITY
SEE THERMAL CONDUCTIVITY
THERMAL STABILITY
SILICON-CHROMIUM ELECTRON-BEAM-DEPOSITED RESISTIVE FILMS V242 490-497
THERMAL STABILITY, ALLOYING EFFECTS
THE THERMAL STABILITY OF THE BETA PRIME PHASE OCCURRING IN THE AG-ZN AND AG-AU-ZN SYSTEMS V242 31-34
THERMOCYCLING
SEE THERMAL CYCLING
THERMODYNAMIC PROPERTIES
SEE THERMODYNAMICS
THERMODYNAMICS
THE ACTIVITY OF CARBON IN ALLOYED AUSTENITE AT 1000 C V242 35-41
THERMODYNAMICS OF THE COBALT TRANSFORMATION V242 139-144
GALVANIC CELL STUDIES USING A MOLTEN OXIDE ELECTROLYTE. PT. 1. THERMODYNAMIC PROPERTIES OF THE LEAD-SILVER SYSTEM V242 183-189
THE INFLUENCE OF THE DENSITY OF STATES ON THE THERMODYNAMIC ACTIVITY OF ZINC IN THE EPSILON PHASE OF THE AG-ZN SYSTEM V242 190-195
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 1. SHORT-RANGE ORDER V242 272-277
THE SILVER-RICH SOLID SOLUTIONS IN THE SYSTEM SILVER-MAGNESIUM. PT. 2. LONG-RANGE ORDER

V242 278-283
THERMODYNAMIC ANALYSIS OF DILUTE TERNARY SYSTEMS. PT. 1. THE AG-AU-SN SYSTEM V242 291-295
THE THERMODYNAMIC PROPERTIES OF LIQUID ZINC-TIN-CADMIUM-LEAD SOLUTION V242 558-565
THE VAPOR PRESSURE OF LIQUID SILVER V242 719-721
NEAR-EQUILIBRIUM KINETICS OF THE DISSOCIATION OF CUPRIC OXIDE V242 822-825
STATISTICAL THERMODYNAMICS OF CARBON IN TERNARY AUSTENITIC IRON-BASE ALLOYS V242 862-869
ON NONISOTHERMAL FLOW OF GASES THROUGH PACKED BEDS V242 918-921
SULFUR IN LIQUID IRON ALLOYS.. PT. 1. BINARY FE-S V242 940-946
A STUDY OF THE THERMODYNAMICS OF CARBON IN AUSTENITE BY AN ELECTROCHEMICAL METHOD V242 1083-1089
THERMODYNAMIC PROPERTIES OF INTERSTITIAL SOLUTIONS OF IRON-BASE ALLOYS V242 1135-1143
THERMODYNAMICS OF THE ERBIUM-DEUTERIUM SYSTEM V242 1161-1165
VAPOR PRESSURE OF THALLIUM AND ACTIVITY MEASUREMENTS ON LIQUID SILVER-THALLIUM ALLOYS BY THE TORSION EFFUSION METHOD V242 1231-1232
HEATS OF SOLUTIONS OF TELLURIUM IN LIQUID TIN V242 1481-1483
A THERMODYNAMIC STUDY OF LIQUID MANGANESE-TIN ALLOYS V242 1709-1711
THERMODYNAMIC PROPERTIES AND ORDERING IN COAL V242 1801-1807
ON THE CARBON-CARBON INTERACTION ENERGY IN IRON V242 1845-1847
THERMODYNAMICS OF CARBIDE FORMATION AND GRAPHITE SOLUBILITY IN THE CAO-SIO2-AL2O3 SYSTEM V242 2033-2037
LOW-TEMPERATURE HEAT CAPACITY AND HIGH TEMPERATURE ENTHALPY OF CAMG2 V242 2051-2054
THERMODYNAMIC PROPERTIES OF COPPER AND GOLD IN SILICON AND GERMANIUM V242 2055-2061
THE SOLUBILITY OF CARBON IN COBALT AND NICKEL V242 2129-2132
THE FREE ENERGY OF FORMATION OF RES2 V242 2143-2145
THERMODYNAMIC INTERACTIONS BETWEEN ZINC AND BISMUTH IN DILUTE SOLUTION IN MOLTEN TIN V242 2369-2371

THERMOELASTICITY
SEE ELASTICITY
THERMAL PROPERTIES

THERMOMECHANICAL TREATMENT
AGING IN NB--CB---TI-O SUPERCONDUCTORS V242 2263-2270

THERMOPHYSICAL PROPERTIES
SEE THERMAL PROPERTIES

THERMOSTABILITY
SEE THERMAL STABILITY

THETA PHASE
SEE ALSO THETA PRIME PHASE
THE INFLUENCE OF PLASTIC DEFORMATION ON THE THETA PRIME TO THETA TRANSFORMATION IN AL-4 PCT CU V242 591-596
THERMALLY INDUCED PHASE TRANSFORMATIONS IN IRON CARBIDES V242 1091-1100

THETA PRIME PHASE
THE INFLUENCE OF PLASTIC DEFORMATION ON THE THETA PRIME TO THETA TRANSFORMATION IN AL-4 PCT CU V242 591-596

THICKNESS
INFLUENCE OF WORK-HARDENING EXPONENT ON THE FRACTURE TOUGHNESS OF HIGH-STRENGTH MATERIALS V242 320-328

THIN FILMS
PROCESSING AND EVALUATION OF RF SPUTTERED QUARTZ V242 526-531
SILICA FILMS BY THE OXIDATION OF SILANE V242 532-539
FORMATION OF PHOSPHOSILICATE GLASS FILMS ON SILICON DIOXIDE V242 539-545
PREPARATION AND PROPERTIES OF SIO2 FILMS DEPOSITED FROM SIH2 AND O2 V242 546-550

THIN FILMS, COATINGS
THE DEPOSITION OF SILICON ON SAPPHIRE IN ULTRAHIGH VACUUM V242 470-479

THIN FILMS, CORROSION EFFECTS
PASSIVATION REACTIONS OF NICKEL AND COPPER ALLOYS WITH FLUORINE V242 1635-1643

THIN FILMS, CRYSTAL GROWTH
THE SOLIDIFICATION OF ELECTROSLAG FLUXES V242 1462-1464

THIN FILMS, CRYSTAL LATTICES
HETEROEPITAXIAL GROWTH OF MOLYBDENUM THIN FILMS ON INSULATING SUBSTRATES V242 75-78
ON THE STRUCTURE OF ALUMINUM FILMS V242 502-511

THIN FILMS, ELECTRICAL PROPERTIES
SILICON-CHROMIUM ELECTRON-BEAM-DEPOSITED RESISTIVE FILMS V242 490-497
MOLYBDENUM THIN-FILM RESISTORS FOR INTEGRATED CIRCUITS V242 497-501

THIN FILMS, MECHANICAL PROPERTIES
THE MECHANICAL PROPERTIES OF PHYSICAL VAPOR DEPOSITED TITANIUM V242 2251-2256

THIN FILMS, SINGLE CRYSTALS
VACUUM DEPOSITION OF SINGLE-CRYSTALLINE SILICON ON SAPPHIRE V242 479-484

THIN FOIL
SEE METAL FOILS

THORIUM, MECHANICAL PROPERTIES
EFFECT OF CARBON ON THE STRENGTH OF THORIUM V242 922-929

TILTING FURNACES
SEE LD CONVERTERS

TIN, ALLOYING ELEMENTS
THE DENSITIES OF SOME LIQUID LEAD-ANTIMONY AND LEAD-ANTIMONY-TIN ALLOYS V242 859-862
TERNARY DIFFUSION IN CU-ZN-SN SOLID SOLUTIONS V242 885-890

TIN, BINARY SYSTEMS
METALLURGICAL AND ELECTRONIC PROPERTIES OF PB1-XSNXTE, PB1-XSNXSE, AND OTHER IV-VI ALLOYS V242 354-365
DIFFUSION IN LIQUID BISMUTH-TIN ALLOYS V242 768-770
THE DENDRITE-EUTECTIC TRANSITION IN SN-PB ALLOYS V242 1275-1279
HEATS OF SOLUTIONS OF TELLURIUM IN LIQUID TIN V242 1481-1483
A CALORIMETRIC STUDY OF THE RHODIUM-TIN SYSTEM V242 1553-1554
NUCLEATION AND GROWTH OF THE PB-SN EUTECTIC V242 1627-1633
STUDY OF THE MANGANESE-RICH END OF MN-SN SYSTEM V242 1661-1663
A THERMODYNAMIC STUDY OF LIQUID MANGANESE-TIN ALLOYS V242 1709-1711
HEATS OF SOLUTION AND HEATS OF COMPOUND FORMATION IN THE LANTHANUM-TIN SYSTEMS V242 2013-2014

TIN, DIFFUSION
DISCUSSION OF DIFFUSION OF PALLADIUM, SILVER, CADMIUM, INDIUM, AND TIN IN ALUMINUM V242 956
CONVECTION EFFECTS IN THE CAPILLARY RESERVOIR TECHNIQUE FOR MEASURING LIQUID METAL DIFFUSION COEFFICIENTS V242 1937-1942

TIN, INTERMETALLICS
HOT PRESSING OF CB3SN --NB3SN-- AND CB3SN COMPOSITES AND SOME RESULTING SUPERCONDUCTIVE PROPERTIES V242 603-607
THE SUPERCONDUCTING PERFORMANCE OF DIFFUSION-PROCESSED NB3SN--CB3SN-- DOPED WITH ZRO2 PARTICLES V242 1067-1070

TIN, PHYSICAL PROPERTIES
THE DENSITIES OF LIQUID TIN, LEAD, AND TIN-LEAD ALLOYS V242 819-822
DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS V242 1483-1484

TIN, QUATERNARY SYSTEMS
THE THERMODYNAMIC PROPERTIES OF LIQUID ZINC-TIN-CADMIUM-LEAD SOLUTION V242 558-565

TIN, REACTIONS /CHEMICAL/
THERMODYNAMIC INTERACTIONS BETWEEN ZINC AND BISMUTH IN DILUTE SOLUTION IN MOLTEN TIN V242 2369-2371

TIN, TERNARY SYSTEMS
THERMODYNAMIC ANALYSIS OF DILUTE TERNARY SYSTEMS. PT. 1. THE AG-AU-SN SYSTEM V242 291-295
THE GOLD-TIN-LEAD ALLOYS--THE GOLD-TIN-LEAD SYSTEM V242 2257-2261

TIN, TRANSPORT PROPERTIES
ELECTROTRANSPORT AND RESISTIVITY IN DILUTE SOLUTIONS OF CADMIUM, MERCURY, AND TIN IN MOLTEN SODIUM V242 1335-1341

TIN BASE ALLOYS, CRYSTAL GROWTH
THE CELLULAR STRUCTURE IN THE SN-CD EUTECTIC V242 1785-1791
SEGREGATION AND CONSTITUTIONAL SUPERCOOLING IN

ALLOYS SOLIDIFYING WITH A CELLULAR SOLID-LIQUID INTERFACE V242 2091-2097
TIN BASE ALLOYS, MECHANICAL PROPERTIES
THE ELONGATION OF SUPERPLASTIC ALLOYS V242 2221-2227
TIN BASE ALLOYS, PHYSICAL PROPERTIES
THE DENSITIES OF LIQUID TIN, LEAD, AND TIN-LEAD ALLOYS V242 819-822
TIN COATINGS
SEE TIN
TIN COMPOUNDS, BINARY SYSTEMS
ON THE SOLID SOLUTIONS OF TIN TELLURIDE AND LEAD TELLURIDE V242 371-373
TIN COMPOUNDS, CRYSTAL GROWTH
CRYSTAL GROWTH, ANNEALING, AND DIFFUSION OF LEAD-TIN CHALCOGENIDES V242 374-383
TIN COMPOUNDS, PHASE TRANSFORMATIONS
PHASE RELATIONS IN THE SYSTEM SNTE-SNSE V242 709-712
TIN COMPOUNDS, SINGLE CRYSTALS
GROWTH AND CHARACTERIZATION OF SINGLE CRYSTALS OF PBTE-SNTE V242 366-371
TIN NICKEL ALLOY PLATING
SEE ALLOY PLATING
TITANIUM, ALLOYING ADDITIVE
SULFUR SOLUBILITY AND INTERNAL SULFIDATION OF IRON-TITANIUM ALLOYS V242 2433-2439
TITANIUM, ALLOYING ELEMENTS
CRITICAL CURRENT OF SUPERCONDUCTING NB --CB---ZR-TI ALLOYS IN HIGH MAGNETIC FIELD V242 1793-1800
LATTICE PARAMETERS AS A FUNCTION OF TITANIUM IN AUSTENITIC FE-NI-TI ALLOYS V242 2365-2367
TITANIUM, BINARY SYSTEMS
REVISION OF THE TITANIUM-TUNGSTEN SYSTEM V242 953-954
THE MAGNESIUM-TITANIUM PHASE DIAGRAM TO 1.0 PCT TITANIUM V242 2069-2073
TITANIUM, CRYSTAL GROWTH
MECHANISM OF REORIENTATION DURING RECRYSTALLIZATION OF POLYCRYSTALLINE TITANIUM V242 1013-1024
TITANIUM, CRYSTAL LATTICES
CRYSTALLOGRAPHIC ANGULAR RELATIONSHIPS IN HCP TITANIUM V242 724-725
EFFECTS OF ELASTIC ANISOTROPY ON DISLOCATIONS IN HCP METALS V242 1575-1586
TITANIUM, DIFFUSION
THE DIFFUSION OF HYDROGEN IN TITANIUM V242 682-685
TITANIUM, MECHANICAL PROPERTIES
DEFORMATION MECHANISMS IN TITANIUM AND TITANIUM-ALUMINUM ALLOYS V242 648-653
A STEREOGRAPHIC REPRESENTATION OF KNOOP HARDNESS ANISOTROPY V242 809-814
FATIGUE BEHAVIOR OF TITANIUM V242 1223-1230
THE MECHANICAL PROPERTIES OF PHYSICAL VAPOR DEPOSITED TITANIUM V242 2251-2256
TITANIUM BASE ALLOYS, MECHANICAL PROPERTIES
INFLUENCE OF WORK-HARDENING EXPONENT ON THE FRACTURE TOUGHNESS OF HIGH-STRENGTH MATERIALS V242 320-328
DEFORMATION MECHANISMS IN TITANIUM AND TITANIUM-ALUMINUM ALLOYS V242 648-653
FATIGUE BEHAVIOR OF TITANIUM V242 1223-1230
DEFORMATION BEHAVIOR IN THE NEAR-EQUIATOMIC NI-TI ALLOYS V242 2393-2398
TITANIUM BASE ALLOYS, MICROSTRUCTURE
BETA GRAIN SIZE DETERMINATION IN AN EQUIAXED ALPHA PLUS BETA TITANIUM ALLOY V242 755-756
COMPOSITION AND STRUCTURE OF SILICIDE PRECIPITATE IN COMPLEX TITANIUM --6AL-3SN-3ZR-- SILICON ALLOYS V242 1454-1456
HYDROGEN-INDUCED EXPANSIONS IN TITANIUM-ALUMINUM ALLOYS V242 1901-1913
TITANIUM BASE ALLOYS, PHASE TRANSFORMATIONS
PHASE TRANSFORMATIONS IN TI-MO AND TI-V ALLOYS V242 2461-2469
TITANIUM BASE ALLOYS, PHASES /STATE OF MATTER/
HIGH-TEMPERATURE STABILITY OF EPSILON TIXN V242 343-345
--DISCUSSION ON-- THE ORDERING TRANSFORMATION IN TITANIUM.. ALUMINUM ALLOYS CONTAINING UP TO 25 AT. PCT ALUMINUM V242 726-730
--DISCUSSION ON-- THE ORDERING TRANSFORMATION IN TITANIUM.. ALUMINUM ALLOYS CONTAINING UP TO 25 AT. PCT ALUMINUM V242 742-744
TITANIUM BASE ALLOYS, STRUCTURAL HARDENING
AGING IN NB--CB---TI-O SUPERCONDUCTORS V242 2263-2270
TITANIUM COMPOUNDS, COMPOSITE MATERIALS
SYNTHESIS OF OXIDATION RESISTANT METAL DIBORIDE COMPOSITES V242 1077-1082
TOP BLOWN CONVERTERS
SEE LD CONVERTERS
TORSION TESTS
VAPOR PRESSURE OF THALLIUM AND ACTIVITY MEASUREMENTS ON LIQUID SILVER-THALLIUM ALLOYS BY THE TORSION EFFUSION METHOD V242 1231-1232
TORSIONAL MODULUS
SEE SHEAR MODULUS
TORSIONAL VIBRATION
SEE VIBRATION
TOUGHNESS
SEE FRACTURE TOUGHNESS
TRACERS
SEE RADIOACTIVE TRACERS
TRACING /RADIOACTIVE/
SEE RADIOACTIVE TRACERS
TRANSFERRING
SEE HEAT TRANSFER
MASS TRANSFER
TRANSFORMATIONS /MATERIALS/
SEE PHASE TRANSFORMATIONS
TRANSITION METALS
SEE CHROMIUM
COBALT
IRIDIUM
IRON
MANGANESE
MOLYBDENUM
NICKEL
NIOBIUM
PALLADIUM
PLATINUM
REFRACTORY METALS
RHENIUM
RHODIUM
RUTHENIUM
TANTALUM
TITANIUM
TUNGSTEN
VANADIUM
YTTRIUM
ZIRCONIUM
TRANSMISSION
SEE HEAT TRANSMISSION
TRANSMISSION ELECTRON MICROSCOPY
THE PREPARATION OF FINE RECRYSTALLIZED TUNGSTEN WIRE FOR TRANSMISSION ELECTRON MICROSCOPY V242 157-160
MICROSTRAIN COMPRESSION OF BERYLLIUM AND BERYLLIUM ALLOY SINGLE CRYSTALS PARALLEL TO THE --0001--. PT. 2. SLIP TRACE ANALYSIS AND TRANSMISSION ELECTRON MICROSCOPY V242 987-994
FORMATION OF JACOBSITE AND PYROXMANGITE ON A 3 PCT SILICON-IRON ALLOY CONTAINING SMALL AMOUNTS OF MANGANESE V242 1759-1761
A TRANSMISSION ELECTRON MICROSCOPIC STUDY OF SOME ION-NITRIDED BINARY IRON ALLOYS AND STEELS V242 2415-2422
TRANSMITTANCE
SEE OPACITY
TRANSPORT PROPERTIES
METALLURGICAL AND ELECTRONIC PROPERTIES OF PB1-XSNXTE, PB1-XSNXSE, AND OTHER IV-VI ALLOYS V242 354-365
A SURVEY OF RADIATIVE AND NONRADIATIVE RECOMBINATION MECHANISMS IN THE III-V COMPOUND SEMICONDUCTORS V242 384-400
EVIDENCE FOR A CORRELATION BETWEEN ELECTROMIGRATION AND ELECTRICAL RESISTIVITY V242 1771-1774
THE SB-TL-TE SYSTEM.. PHASE RELATIONS AND TRANSPORT PROPERTIES IN THE TELLURIUM-RICH REGION V242 2229-2236
TRANSURANIUM METALS
SEE PLUTONIUM
TRANSVERSE WAVES
SEE THERMAL RADIATION
TRIAXIAL STRESS
SEE AXIAL STRESS
TTT CURVES
ISOTHERMAL TRANSFORMATIONS IN AN FE-7.9CR-1.1C ALLOY V242 79-82
TUBE ROLLING
SEE HOT ROLLING
TUNGSTEN, ALLOYING ELEMENTS
MEASUREMENTS OF YOUNGS MODULUS OF POLYCRYSTALLINE NICKEL-TUNGSTEN ALLOYS AT ELEVATED TEMPERATURES

V242 2491-2494
TUNGSTEN, BINARY SYSTEMS
REVISION OF THE TITANIUM-TUNGSTEN SYSTEM
V242 953-954
TUNGSTEN, CRYSTAL GROWTH
NICKEL INDUCED RECRYSTALLIZATION OF DOPED TUNGSTEN
V242 1973-1979
TUNGSTEN, CRYSTAL LATTICES
INTERNAL VOID FORMATION IN POWDER METALLURGY TUNGSTEN V242 2191-2198
TUNGSTEN, DIFFUSION
PERMEABILITY OF TUNGSTEN TO NITROGEN FROM 1800 TO 2600 C V242 626-630
--DISCUSSION ON-- GRAIN BOUNDARY DIFFUSION IN TUNGSTEN V242 734-736
THE DIFFUSION OF NICKEL DURING NICKEL-INDUCED RECRYSTALLIZATION IN DOPED TUNGSTEN
V242 2121-2127
TUNGSTEN, FIBER METALLURGY
THE METAL BORIDES IN BORON FIBER CORES., IDENTIFICATION OF MOB4 V242 754-755
TUNGSTEN, MECHANICAL PROPERTIES
MICROHARDNESS AND MICROHARDNESS ANISOTROPY OF TUNGSTEN V242 575-578
THE NUCLEATION OF BRITTLE FRACTURE IN SINTERED TUNGSTEN AT LOW TEMPERATURES V242 703-708
TUNGSTEN, METALLOGRAPHY
THE PREPARATION OF FINE RECRYSTALLIZED TUNGSTEN WIRE FOR TRANSMISSION ELECTRON MICROSCOPY
V242 157-160
TUNGSTEN BASE ALLOYS, MICROSTRUCTURE
DISLOCATION STRUCTURES IN SLIGHTLY STRAINED TUNGSTEN, TUNGSTEN-RHENIUM, AND TUNGSTEN-TANTALUM ALLOYS V242 634-640
TUNGSTEN CARBIDE, MECHANICAL PROPERTIES
DISPERSED-PARTICLE DEFORMATION IN WC-CO ALLOYS
V242 1181-1182
TUNGSTEN CARBIDE, THERMAL PROPERTIES
DISCUSSION OF THERMAL PROPERTIES OF TANTALUM MONOCARBIDE AND TUNGSTEN MONOCARBIDE
V242 1751-1752
TUNGSTEN COMPOUNDS
SEE ALSO TUNGSTEN CARBIDE
TUNGSTEN COMPOUNDS, MICROSTRUCTURE
COMPUTER AID IN INDEXING HCP FIELD-ION MICROGRAPHS
V242 1186-1187
TUNGSTEN COMPOUNDS, REACTIONS /CHEMICAL/
KINETICS OF THE THERMAL DECOMPOSITION OF TUNGSTEN HEXACARBONYL V242 995-1000
TURBINES
SEE GAS TURBINES
TWINNING
SEE ALSO MECHANICAL TWINNING
PLANE-STRAIN COMPRESSION OF MAGNESIUM AND MAGNESIUM ALLOY CRYSTALS V242 5-13
-110- TWINNING IN BCT MARTENSITE
V242 337-338
THE DEFORMATION CHARACTERISTICS OF TEXTURED MAGNESIUM V242 654-660
COMPOSITIONAL EFFECTS ON THE DEFORMATION MODES, ANNEALING TWIN FREQUENCIES, AND STACKING FAULT ENERGIES OF AUSTENITIC STAINLESS STEELS
V242 771-776
X-RAY INVESTIGATIONS ON THE STRUCTURE OF SILVER FILMS EVAPORATED ON CAF2 AND NACL SINGLE-CRYSTAL SUBSTRATES V242 1111-1115
TWIN BOUNDARIES IN ALUMINUM V242 1188-1190
DEFORMATION AND TRANSFORMATION TWINNING MODES IN FE-NI AND FE-NI-C MARTENSITES
V242 1555-1558
TWINNING, STRESS EFFECTS
THE EFFECT OF PREFERRED ORIENTATION ON TWINNING IN IRON V242 1831-1836

ULTIMATE STRENGTH
SEE TENSILE STRENGTH
ULTIMATE TENSILE STRENGTH
SEE TENSILE STRENGTH
ULTRASONIC ATTENUATION
EXPERIMENTAL STUDY OF THE ORIENTATION DEPENDENCE OF DISLOCATION DAMPING IN ALUMINUM CRYSTALS
V242 2185-2190
ULTRASONICS
EFFECT OF LOW-ENERGY ULTRASONIC VIBRATIONS ON DYNAMIC NUCLEATION V242 736-738
A STUDY OF THE EFFECTS OF ULTRASONICS ON DIFFUSION
V242 1233-1235
ULTRASONIC ATTENUATION STUDIES OF MIXED MICROSTRUCTURES IN STEEL V242 1543-1551
UNIT CELL
THE CRYSTAL STRUCTURE OF NICKEL-RICH NIAL AND MARTENSITIC NIAL V242 722-724
DILATION OF NICKEL LATTICE BY DISSOLVED CARBON
V242 765-766
DISLOCATION TANGLE FORMATION AND STRAIN AGING IN CARBURIZED SINGLE CRYSTALS OF 3.25 PCT SILICON-IRON V242 1413-1418
TERNARY COMPOUNDS WITH THE FE2P-TYPE STRUCTURE
V242 2075-2080
LATTICE PARAMETERS AS A FUNCTION OF TITANIUM IN AUSTENITIC FE-NI-TI ALLOYS V242 2365-2367
URANIUM, INTERMETALLICS
THE COMPOUND U2RU3 V242 340-341
URANIUM CARBIDE, THERMAL PROPERTIES
A STUDY OF THE FREE ENERGIES OF FORMATION OF URANIUM MONOCARBIDE AND URANIUM DICARBIDE
V242 1809-1813
URANIUM COMPOUNDS
SEE ALSO URANIUM CARBIDE
URANIUM COMPOUNDS, MECHANICAL PROPERTIES
COMPRESSIVE CREEP OF POLYCRYSTALLINE URANIUM MONONITRIDE IN NITROGEN V242 1466-1467

VACANCIES /CRYSTAL DEFECTS/
SEE LATTICE VACANCIES
VACANCIES /LATTICE/
SEE LATTICE VACANCIES
VACUUM DEPOSITED COATINGS, MICROSTRUCTURE
X-RAY INVESTIGATIONS ON THE STRUCTURE OF SILVER FILMS EVAPORATED ON CAF2 AND NACL SINGLE-CRYSTAL SUBSTRATES V242 1111-1115
VACUUM DEPOSITION
THE DEPOSITION OF SILICON ON SAPPHIRE IN ULTRAHIGH VACUUM V242 470-479
VACUUM DEPOSITION OF SINGLE-CRYSTALLINE SILICON ON SAPPHIRE V242 479-484
VACUUM GAGES
SEE KNUDSEN GAGES
VANADIUM, MECHANICAL PROPERTIES
CREEP CORRELATIONS FOR BCC REFRACTORY METALS
V242 345-347
THE EFFECT OF HYDROGEN ON THE STRUCTURE AND PROPERTIES OF VANADIUM V242 1775-1784
VANADIUM COMPOUNDS, SORPTION
HIGH-TEMPERATURE ABSORPTION OF YVO4 AND YVO4..EU
V242 714-716
VAPOR DEPOSITED COATINGS
SEE ALSO VACUUM DEPOSITED COATINGS
VAPOR DEPOSITED COATINGS, ELECTRICAL PROPERTIES
ELECTRICAL RESISTIVITY OF VAPOR-DEPOSITED SILVER FILMS V242 160-161
VAPOR DEPOSITED COATINGS, MECHANICAL PROPERTIES
THE MECHANICAL PROPERTIES OF PHYSICAL VAPOR DEPOSITED TITANIUM V242 2251-2256
VAPOR DEPOSITED COATINGS, MICROSTRUCTURE
CHEMICAL VAPOR DEPOSITION OF HAFNIUM CARBIDE
V242 588-591
VAPOR DEPOSITION
SEE ALSO VACUUM DEPOSITION
ELECTROLUMINESCENCE OF VAPOR-GROWN GAAS AND GAAS1-XPX DIODES V242 400-406
VAPOR PRESSURE
THERMODYNAMIC MEASUREMENTS USING ATOMIC ABSORPTION
V242 151-152
VAPOR PRESSURE OF SILVER OVER TERNARY LIQUID CU-AG-AU ALLOYS V242 225-231
ACTIVITY OF ALUMINUM IN AL-FE ALLOYS AT 1315 C
V242 253-255
THE VAPOR PRESSURE OF LIQUID SILVER
V242 719-721
VAPOR PRESSURE OF THALLIUM AND ACTIVITY MEASUREMENTS ON LIQUID SILVER-THALLIUM ALLOYS BY THE TORSION EFFUSION METHOD V242 1231-1232
THERMODYNAMIC PROPERTIES OF SOLID RHODIUM-PALLADIUM ALLOYS V242 1523-1526
A THERMODYNAMIC STUDY OF LIQUID MANGANESE-TIN ALLOYS V242 1709-1711
THE CHEMICAL ACTIVITIES OF IRON AND CHROMIUM IN BINARY FE-CR ALLOYS V242 1719-1726
VAPORIZING
CONDENSATION-ENHANCED VAPORIZATION RATES IN NONISOTHERMAL SYSTEMS V242 2355-2357
VAPORS
SEE WATER VAPOR
VECTOR ANALYSIS
NUMERICAL TECHNIQUE FOR ALIGNING CRYSTALS FROM LAUE

PHOTOGRAPHS V242 341-342
VEINING /STRUCTURE/
SEE PREFERRED ORIENTATION
VIBRATION
DYNAMIC NUCLEATION OF SUPERCOOLED METALS V242 256-263
VISCOSITY
THE DENSITY AND VISCOSITY OF LIQUID THALLIUM V242 2309-2311
VISCOUS FLOW
HYDROSTATIC TENSIONS IN SOLIDIFYING ALLOYS V242 268-271
VITRIFICATION
SEE MELTING
VOIDS
INTERNAL VOID FORMATION IN POWDER METALLURGY TUNGSTEN V242 2191-2198
VOLATILIZATION
SEE VAPORIZING
VOLATILIZING
SEE VAPORIZING
VOLTAGE
SEE ELECTRIC POTENTIAL
VOLTAGE DROP
SEE ELECTRIC POTENTIAL
VOLTAGE MEASUREMENT
SEE ELECTRICAL MEASUREMENTS

WALL THICKNESS
SEE THICKNESS
WATER VAPOR
THE DETERMINATION OF WATER VAPOR IN TOUGH PITCH COPPER WIRE BAR BY AN ALUMINUM REDUCTION TECHNIQUE V242 1009-1011
WAVES
SEE SHOCK WAVES
SOUND WAVES
THERMAL RADIATION
WEAR
THE HYPEREUTECTIC ALUMINUM-SILICON ALLOYS 390 AND A390 V242 1217-1222
WEAR RESISTANCE
SEE WEAR
WELDING
SEE EXPLOSIVE WELDING
WHISKERS
CHEMICAL VAPOR DEPOSITION OF HAFNIUM CARBIDE V242 588-591
WHISKERS, COMPOSITE MATERIALS
THE CHARPY IMPACT BEHAVIOR OF AL3NI WHISKER-REINFORCED ALUMINUM V242 1237-1247
WHISKERS, MECHANICAL PROPERTIES
CREEP RELAXATION AND KINKING OF AL3NI WHISKERS AT ELEVATED TEMPERATURES V242 2281-2286
WIRE, CRYSTAL LATTICES
INTERNAL VOID FORMATION IN POWDER METALLURGY TUNGSTEN V242 2191-2198
WIRE, EXTRUSION
DEPENDENCE OF TEXTURE ON PROCESSING CONDITIONS IN EXTRUDED ALUMINUM WIRES V242 1461
WIRE BAR
SEE BILLETS
WOLFRAM
SEE TUNGSTEN
WORK HARDENING
SEE STRAIN HARDENING
WORK STRENGTHENING
SEE STRAIN HARDENING

X RAY ANALYSIS
SEE ALSO LAUE METHOD
X RAY DIFFRACTION
X RAY FLUORESCENCE
X RAY SPECTROSCOPY
LATTICE PARAMETER AND THERMAL EXPANSION COEFFICIENT OF MOLYBDENUM BETWEEN 15 AND 65 C V242 1185-1186
AN X-RAY LINE-BROADENING STUDY OF RECOVERY IN MONEL 400 V242 1645-1649
X RAY DIFFRACTION
SEE ALSO LAUE METHOD
X-RAY INVESTIGATIONS ON THE STRUCTURE OF SILVER FILMS EVAPORATED ON CAF2 AND NACL SINGLE-CRYSTAL SUBSTRATES V242 1111-1115
COMPOSITION AND STRUCTURE OF SILICIDE PRECIPITATE IN COMPLEX TITANIUM --6AL-3SN-3ZR-- SILICON ALLOYS V242 1454-1456
PREFERRED ORIENTATION STUDIES OF COLD-DRAWN MARTENSITIC STEEL BARS V242 2359-2362
X RAY DIFFRACTOMETER
SEE X RAY DIFFRACTION
X RAY FLUORESCENCE
COMPOSITION AND STRUCTURE OF SILICIDE PRECIPITATE IN COMPLEX TITANIUM --6AL-3SN-3ZR-- SILICON ALLOYS V242 1454-1456
X RAY FLUORESCENCE ANALYSIS
SEE X RAY ANALYSIS
X RAY FLUORESCENCE
X RAY PHOTOGRAPHS
SEE X RAY DIFFRACTION
X RAY SPECTRA
SEE X RAY SPECTROSCOPY
X RAY SPECTROGRAPHIC ANALYSIS
SEE X RAY SPECTROSCOPY
X RAY SPECTROMETERS
SEE X RAY SPECTROSCOPY
X RAY SPECTROSCOPY
FORMATION OF JACOBSITE AND PYROXMANGITE ON A 3 PCT SILICON-IRON ALLOY CONTAINING SMALL AMOUNTS OF MANGANESE V242 1759-1761

YIELD
THE PORTEVIN-LE CHATELIER EFFECT IN NICKEL-COPPER ALLOYS V242 333-335
YIELD POINT
THE INFLUENCE OF GRAIN SIZE AND SPECIMEN SIZE ON THE UPPER YIELD STRESS OF IRON V242 1595-1597
YIELD POINT, COMPOSITION EFFECTS
EFFECT OF CARBON ON THE STRENGTH OF THORIUM V242 922-929
YIELD STRAIN
SEE STRAIN
YIELD STRENGTH
THE RELATIONSHIP BETWEEN LOWER YIELD STRESS AND GRAIN SIZE IN ARMCO IRON V242 115-119
SOME EFFECTS OF OXYGEN ON THE TENSILE DEFORMATION OF POLYCRYSTALLINE ZIRCONIUM V242 661-669
DEFORMATION THEORY OF HOT PRESSING-YIELD CRITERION V242 1117-1120
EFFECT OF GRAIN SIZE AND TEMPERATURE ON THE STRENGTHENING OF NICKEL AND A NICKEL-COBALT ALLOY BY CARBON V242 1527-1533
THE STRENGTHENING MECHANISM IN SPHEROIDIZED CARBON STEELS V242 1535-1542
DISCUSSION OF PLASTIC DEFORMATION OF SINGLE CRYSTAL-NIAL V242 1753-1754
DISCUSSION OF THE RELATIONSHIP BETWEEN LOWER YIELD STRESS AND GRAIN SIZE IN ARMCO IRON V242 1762
THE TEMPERATURE DEPENDENCE OF MICROYIELDING IN POLYCRYSTALLINE CU 1.9 WT PCT BE V242 2163-2167
CONTROLLED MICROSTRUCTURES OF AL-CUAL2 EUTECTIC COMPOSITES AND THEIR COMPRESSIVE PROPERTIES V242 2441-2452
YIELD STRENGTH, ALLOYING EFFECTS
INFLUENCE OF A 3.28 PCT NICKEL ADDITION ON THE YIELD AND FRACTURE BEHAVIOR OF ALPHA IRON V242 306-314
YIELD STRESS
SEE YIELD STRENGTH
YOUNGS MODULUS
SEE MODULUS OF ELASTICITY
YTTERBIUM, BINARY SYSTEMS
THE YTTERBIUM-ZINC PHASE DIAGRAM V242 1167-1171
YTTRIUM, BINARY SYSTEMS
THE YTTRIUM-CARBON SYSTEM V242 846-852
YTTRIUM COMPOUNDS, SORPTION
HIGH-TEMPERATURE ABSORPTION OF YVO4 AND YVO4..EU V242 714-716

ZINC, ALLOYING ELEMENTS
TERNARY DIFFUSION IN CU-ZN-SN SOLID SOLUTIONS V242 885-890
STRESS-INDUCED MARTENSITE IN SINGLE CRYSTALS OF CU-ZN BETA PHASE ALLOYS V242 1267-1274
CELLULAR PRECIPITATION IN FE-ZN ALLOYS V242 1359-1367
ZINC, BINARY SYSTEMS
SPINOIDAL DECOMPOSITION V242 166-180
THE INFLUENCE OF THE DENSITY OF STATES ON THE THERMODYNAMIC ACTIVITY OF ZINC IN THE EPSILON

ZINC

PHASE OF THE AG-ZN SYSTEM V242 190-195
THE YTTERBIUM-ZINC PHASE DIAGRAM V242 1167-1171
STRAIN-INDUCED TRANSFORMATION IN AG-ZN ALLOYS V242 1353-1357
THERMODYNAMICS OF BINARY METALLIC SOLUTIONS. PT. 2 V242 1997-2005

ZINC, CRYSTAL LATTICES
DISCUSSION OF IMPURITY EFFECTS ON BASAL SLIP IN ZINC SINGLE CRYSTALS V242 2022-2024

ZINC, DIFFUSION
A STUDY OF THE EFFECTS OF ULTRASONICS ON DIFFUSION V242 1233-1235

ZINC, MECHANICAL PROPERTIES
IMPURITY EFFECTS ON BASAL SLIP IN ZINC SINGLE CRYSTALS V242 132-138
TRANSIENT AND STEADY-STATE CREEP BEHAVIOR OF NICKEL, ZINC, AND IRON V242 1303-1307

ZINC, PHYSICAL PROPERTIES
DISCUSSION OF ERRORS ARISING FROM MENISCUS EFFECTS IN THE PYCNOMETRIC DENSITOMETRY OF LIQUID METALS V242 1483-1484

ZINC, QUATERNARY SYSTEMS
THE THERMODYNAMIC PROPERTIES OF LIQUID ZINC-TIN-CADMIUM-LEAD SOLUTION V242 558-565

ZINC, REACTIONS /CHEMICAL/
THERMODYNAMIC INTERACTIONS BETWEEN ZINC AND BISMUTH IN DILUTE SOLUTION IN MOLTEN TIN V242 2369-2371

ZINC, SOLUBILITY
SOLUBILITY OF METALS IN LIQUID SODIUM.. THE SYSTEMS SODIUM-SILVER, SODIUM-ZINC, AND SODIUM-CERIUM V242 2169-2171

ZINC, TERNARY SYSTEMS
REPRODUCIBLE DIFFUSION OF ZINC INTO GAAS.. APPLICATION OF THE TERNARY PHASE DIAGRAM AND THE DIFFUSION AND SOLUBILITY ANALYSES V242 406-412

ZINC BASE ALLOYS, CRYSTAL GROWTH
THE STRUCTURE OF THE ZN-MG2ZN11 EUTECTIC V242 1891-1895

ZINC BASE ALLOYS, MECHANICAL PROPERTIES
STRUCTURAL CHANGES DURING SUPERPLASTIC DEFORMATION IN AL-78 WT PCT ZN ALLOY V242 716-719
SUPERPLASTICITY IN 60ZN-40AL V242 740-742
THE INFLUENCE OF STRUCTURE ON THE FLOW STRESS-STRAIN RATE BEHAVIOR OF AN-AL ALLOYS V242 825-832

ZINC BASE ALLOYS, MICROSTRUCTURE
MORPHOLOGICAL STUDY OF THE AGING OF A ZN-1 PCT CU ALLOY V242 1381-1384
EVIDENCE FOR THE IMPORTANCE OF CRYSTALLOGRAPHIC SLIP DURING SUPERPLASTIC DEFORMATION OF EUTECTIC ZINC-ALUMINUM V242 2485-2489

ZINC BASE ALLOYS, STRUCTURAL HARDENING
PRECIPITATION PHENOMENA IN BINARY ZINC-ALUMINUM ALLOYS.. HETEROGENEOUS PRECIPITATION AT DISLOCATIONS V242 1927-1932

ZINC COATINGS
SEE ZINC

ZINC COMPOUNDS, BENEFICIATION
THE CATALYZED OXIDATION OF ZINC SULFIDE UNDER ACID PRESSURE LEACHING CONDITIONS V242 1815-1821

ZINC COMPOUNDS, CRYSTAL GROWTH
GROWTH OF CUBIC ZINC SULFIDE FROM MOLTEN LEAD CHLORIDE V242 441-443

ZINC COMPOUNDS, REACTIONS /CHEMICAL/
KINETICS AND MECHANISM OF SULFATION OF ZINC OXIDE V242 1761

ZINC COMPOUNDS, SINGLE CRYSTALS
SOLUTION GROWTH OF --ZN,HG--TE AND GA--P,AS-- CRYSTALS V242 436-441
GROWTH OF SINGLE CRYSTALS OF ZNTE AND ZNTE1-XSEX BY TEMPERATURE GRADIEN SOLUTION ZONING V242 444-448

ZINC DUST
SEE ZINC

ZIRCONIUM, ALLOYING ELEMENTS
CRITICAL CURRENT OF SUPERCONDUCTING NB --CB--ZR-TI ALLOYS IN HIGH MAGNETIC FIELD V242 1793-1800

ZIRCONIUM, CRYSTAL LATTICES
TEXTURES IN DEFORMED ZIRCONIUM SINGLE CRYSTALS V242 1105-1110
COMPUTER PROGRAM FOR CALCULATING INTERPLANAR ANGLES AND INDEXING BACK-REFLECTION LAUE FILMS OF HEXAGONAL CRYSTALS V242 1468-1469
EFFECTS OF ELASTIC ANISOTROPY ON DISLOCATIONS IN HCP METALS V242 1575-1586
DOUBLE ACCOMMODATION KINKING AND GROWTH OF --1121-- TWINS IN ZIRCONIUM V242 2211-2215

ZIRCONIUM, INTERMETALLICS
ON THE TRANSFORMATION OF ZRCR2 V242 2241-2242

ZIRCONIUM, MECHANICAL PROPERTIES
THE PLASTIC DEFORMATION OF ZIRCONIUM-OXYGEN ALLOY SINGLE CRYSTALS IN THE RANGE 77 TO 950 K V242 1881-1890

ZIRCONIUM BASE ALLOYS, MECHANICAL PROPERTIES
SOME EFFECTS OF OXYGEN ON THE TENSILE DEFORMATION OF POLYCRYSTALLINE ZIRCONIUM V242 661-669
--DISCUSSION ON-- DIFFUSION CREEP IN ZIRCONIUM AND CERTAIN ZIRCONIUM ALLOYS V242 744-746

ZIRCONIUM COMPOUNDS, COMPOSITE MATERIALS
SYNTHESIS OF OXIDATION RESISTANT METAL DIBORIDE COMPOSITES V242 1077-1082

ZIRCONIUM COMPOUNDS, DIFFUSION
OXYGEN DIFFUSION IN HYPOSTOICHIOMETRIC ZIRCONIUM OXIDE IN THE TEMPERATURE RANGE OF 875 TO 1050 C V242 1293-1298